

1996 ANNUAL LONG-TERM MONITORING

CORNHUSKER ARMY AMMUNITION PLANT GRAND ISLAND, NEBRASKA

Prepared for
Department of the Army
U.S. Army Environmental Center
Aberdeen Proving Grounds, Maryland

July 1997

Woodward-Clyde



10975 El Monte, Suite 100
Overland Park, Kansas 66211
Project Number K9642

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FINAL REPORT

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1.1 PURPOSE

The United States Army Environmental Center (USAEC) contracted Woodward-Clyde Federal Services (WCFS) to complete the long-term monitoring (LTM) for off-post groundwater locations at the Cornhusker Army Ammunition Plant (CHAAP), located near Grand Island, Nebraska. Work for this assignment is being performed under Contract No. DCAC31-94-D-0059, Delivery Order 0001. This report presents the results of the 1996 annual LTM program for the off-post locations at CHAAP.

1.2 SITE HISTORY

CHAAP is located on an 11,936-acre tract approximately 2 miles west of Grand Island, Nebraska (Figure 1). The site also includes an off-post area (to the northeast) which has groundwater impacted by explosive compounds which originated at CHAAP.

CHAAP was constructed and became fully operational in 1942 as a U.S. Government-owned, contractor-operated facility. CHAAP was responsible for the production of artillery shells, mines, bombs, and rockets for World War II and the Korean and Vietnam conflicts. The plant was operated intermittently for 30 years with the most recent operations ending in 1973. From 1942-1945, various bombs, shells, boosters and supplementary charges were produced at CHAAP using primarily 2,4,6-trinitrotoluene (TNT). From 1950-1955, artillery shells and rockets were produced using a mixture of TNT, cyclonite (RDX) and cyclotetramethylenetetranitramine (HMX). CHAAP was activated again from 1965-1973 to produce bombs, projectiles, and gravel mini-mines. Explosive wastes and residues associated with munitions loading, assembly, and packing operations have resulted in a groundwater contamination plume that originates at waste leach pits and cesspools of the CHAAP load lines and extends east-northeastward into the city of Grand Island, Nebraska.

The explosive compounds have migrated east-northeast with the prevailing direction of groundwater flow. Relatively nonsorbing compounds, RDX and HMX, have migrated the greatest distance. Highly sorbing compounds such as 2,4,6-TNT historically have migrated shorter distances. The Site Characterization Document (SCD) (Watkin-Johnson Environmental 1993) provides the most comprehensive description of the nature and extent of groundwater contamination.

Evaluation and remediation of explosives contamination at CHAAP has been an on-going process. The U.S. Army conducted an incineration project (1987-1988) designed to excavate and treat soils beneath unlined leach pits and cesspools of the CHAAP loadlines. The purpose of the project was to remove the source of explosives contamination. The project reduced the sources of contamination, but was unable to remove all contaminated soil. At many locations, remediation action levels could not be achieved before groundwater was encountered. Water quality sampling on- and off-post has been completed repeatedly since the middle 1980s to identify the extent of groundwater contamination. Where affected water users have been

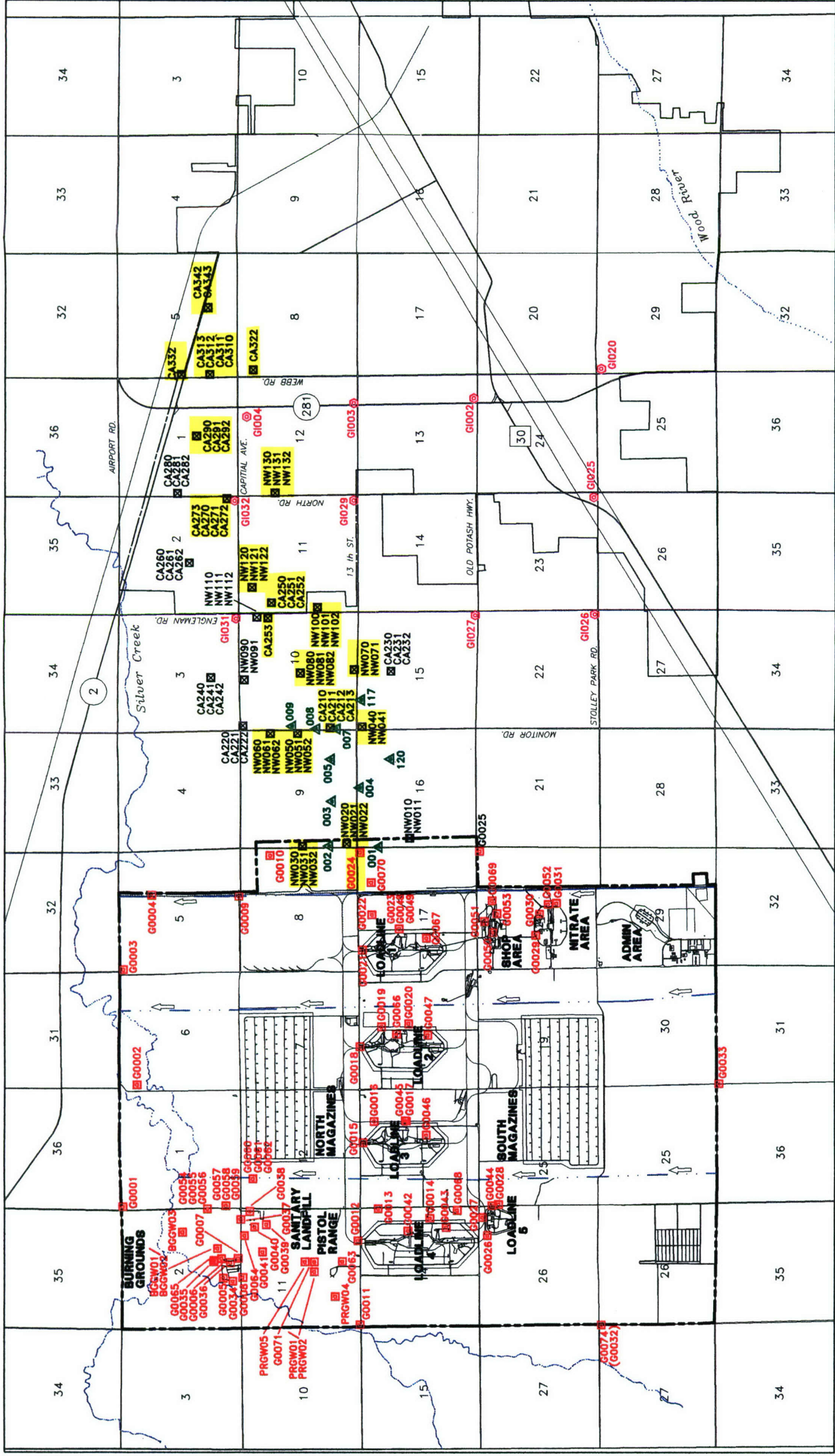
identified, the U.S. Army and the City of Grand Island have worked together to provide alternative water sources.

1.3 SCOPE OF WORK

Groundwater samples were collected from 52 off-post wells and analyzed for explosives using USAEC approved Method UW51. Analytical testing was performed by Inchcape Testing Services Environmental Laboratories (ITS), Richardson, Texas. The groundwater samples were collected to identify concentrations and locations of contamination off-post. Water level readings and water quality parameters were also measured during well purging.

1.4 OBJECTIVE

The primary objective of the LTM program is to monitor and identify plume migration trends.



LEGEND:

- FACILITY BOUNDARY
- GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- ... SURFACE DRAINAGE
- (281) STATE ROUTE
- (30) U.S. ROUTE

DECEMBER 1996 WELLS SAMPLED

- G0001** ON-POST GROUNDWATER MONITORING WELL
- NW082** OFF-POST GROUNDWATER MONITORING WELL
- CA211** CITY OF GRAND ISLAND PIEZOMETER
- G0003** OFF-POST IRRIGATION WELL



NOTE:
ON-POST AST/UST MONITORING WELLS
AND MINIWELLS ARE NOT SHOWN.

SOURCE: ICF KAISER

**Woodward-Clyde
Federal Services**

Engineering & sciences applied to the earth and its environment
10975 El Monte, Suite 100
Overland Park, Kansas 66211

CLIENT: U.S. ARMY ENVIRONMENTAL CENTER

LOCATION: CORNHUSKER AAP

TITLE: WELL LOCATION MAP

PROJ. NO. **K9642**
CHK'D. BY
DATE **07/09/97**
FIG. NO. **1-1**

Field activities for the LTM program consisted of:

- Collecting and analyzing two water samples from the water source used in decontamination and other general field activities
- Collecting and analyzing groundwater from 52 off-post monitoring wells
- Measuring water levels in the off-post monitoring wells
- Measuring water quality parameters (e.g., dissolved oxygen, temperature, pH, conductivity, turbidity, redox) during well purging
- Documenting all field activities

All field activities were completed in accordance with the Technical Plan Addendum (W-C 1996). Standard Operating Procedures (SOPs) were included in the Cornhusker Army Ammunition Plant Remedial Investigation and Feasibility Study Technical Plan, Final Document, June 1995 (ICF Kaiser Engineers). Table 2-1 presents a summary of the 52 off-post monitoring wells sampled during the LTM program at CHAAP. Copies of chain-of-custodies (COCs) are presented in Appendix A.

2.1 GROUNDWATER LEVEL MEASUREMENTS

Groundwater level measurements were taken using a Slope Indicator Model 51453 electronic water level meter to evaluate the configuration of the water table off-post at CHAAP. Water levels were collected as specified in the Technical Plan. Water levels were measured for all wells at the surveyed reference point found on the top of the PVC casing.

Prior to inserting the water level probe into the well casing, an HNu photoionization detector (PID) was used to monitor air quality in the casing and breathing zone. The water level probe was decontaminated between measurements at each of the wells with deionized (DI) water. All measurements were recorded in the field logbook.

2.2 MONITORING WELL PURGING AND WATER QUALITY PARAMETER MEASUREMENTS

Prior to sampling, the wells were purged with 2-inch Grundfos submersible pumps. A quantity of water equal to at least five times the well volume and not greater than ten times was removed from each well prior to collection of the groundwater sample. Water quality parameters included dissolved oxygen, temperature, pH, conductivity, turbidity, and redox which were measured and recorded for each well volume. Purging continued until field parameters had stabilized within 10 percent for three consecutive readings. Wells that had turbidity measurements greater than 10 NTUs were purged 10 well volumes. Daily Quality Control Reports (DQCRs) are presented in Appendix B.

Water quality parameters were measured downhole using a HydroLab Data Sonde 3 to determine when the well was stable and ready for sampling. Parameters measured and recorded included redox, dissolved oxygen, pH, conductivity, temperature, and turbidity.

The instrument was calibrated by the manufacturer prior to shipment to CHAAP for field use. Calibration was verified at the beginning and end of each day that samples were collected with standards provided by the manufacturer and the United States Army Corps of Engineers (USACE). The Sonde was decontaminated between measurements at each of the wells. The following steps were performed during decontamination: steam-cleaner rinse, Alconox/water mixture rinse, decon water rinse, and triple rinse with DI water. All Sonde measurements were recorded on the water sample collection sheets. Final water quality parameter measurements are summarized in Section 4.4.

2.3 GROUNDWATER SAMPLING

Groundwater samples were collected from 52 off-post monitoring wells in December 1996 at CHAAP. As described above, the static water level and well depth were measured prior to purging and sample collection.

Groundwater samples were collected after the wells had been purged and were placed in appropriately labeled one liter amber glass bottles (2 per well). Quality control (QC) samples were collected, one per every 20 groundwater samples collected. The groundwater samples were packed in coolers with ice (4° C) and shipped to ITS via Federal Express for explosives analysis.

Twenty-three of the 52 off-post monitoring wells sampled in December 1996 had to be resampled in February 1997 due to laboratory error. The laboratory extracted samples outside the recommended holding time of 7 days. Table 2-1 identifies which 23 monitoring wells were resampled. The February 1997 resampling event followed the same procedures outlined above. The laboratory problems and corrective actions are described in Section 4.2.3.

TABLE 2-1

**OFF-POST WELLS SAMPLED
FOR THE 1996 ANNUAL LTM PROGRAM**

WELL ID NUMBER	DATE SAMPLED	FIELD QC SAMPLE ID ¹	EPA SPLIT SAMPLE
NW020	12/09/96		
NW021	12/09/96		
NW022	12/09/96	NW023	
G0024	12/15/96		
NW030 ²	02/17/97		
NW031 ²	02/17/97		NW031
NW032 ²	02/17/97	NW033	
NW040	12/10/96		
NW041	12/10/96		
NW050	12/09/96		
NW051	12/09/96		
NW052	12/09/96		
NW060	12/09/96		
NW061	12/09/96		
NW062	12/09/96		
NW070 ²	02/18/97		
NW071 ²	02/18/97		NW071
NW080	12/10/96		
NW081	12/10/96		
NW082	12/10/96		
NW100 ²	02/18/97		
NW101 ²	02/18/97		
NW102 ²	02/18/97		NW102
NW120	02/18/97		
NW121	12/12/96		NW121
NW122	12/12/96		
NW130 ²	02/19/97		
NW131 ²	02/19/97		
NW132 ²	02/19/97	NW133	
CA210	12/10/96		
CA211	12/10/96		
CA212	12/10/96		
CA213	12/10/96		
CA250	12/15/96		
CA251	12/15/96		
CA252	12/15/96		
CA253 ²	02/18/97		CA253
CA270 ²	02/18/97		
CA271 ²	02/18/97		
CA272 ²	02/18/97		
CA273 ²	02/18/97		
CA290 ²	02/19/97		
CA291 ²	02/19/97		
CA292 ²	02/19/97		
CA310 ²	02/18/97		
CA311 ²	02/18/97		
CA312 ²	02/18/97		
CA313	12/12/96		CA313
CA322	12/12/96		CA322
CA332	12/12/96		CA332
CA342	12/12/96		CA342
CA343	12/12/96		CA343

¹The field QC samples taken at well locations included field duplicate, matrix spike and matrix spike duplicate samples.

²Wells were resampled in February 1997 because samples were extracted outside the recommended holding time.

3.1 GROUNDWATER LEVELS

Groundwater levels were measured at each well as part of the annual sampling event. The water level depths are presented in Table 3-1. The depth to groundwater generally ranged from 4.5 to 10.8 feet below ground surface (bgs).

3.2 HYDRAULIC GRADIENTS

Regionally, groundwater flow is generally to be northeast near the City of Grand Island. Hydraulic gradients were calculated using water level elevations from the off-post monitoring wells. An average horizontal hydraulic gradient of 0.0011 feet per foot was calculated from October 1992 groundwater data (Watkins-Johnson Environmental 1993). Gradients indicated groundwater generally flows to the northeast in the off-post area from CHAAP toward the city. Due to data gaps, the water table map based on December 1996 water level data was not completed. Top-of-casing (TOC) elevations were not available for the off-post monitoring wells during a recent report search at CHAAP.

TABLE 3-1

WATER LEVEL MEASUREMENTS FOR OFF-POST WELLS

Well Number	Sample Date	Well Depth (ft. TOC)	Depth to Water (ft. TOC)	Water Level Elevation (ft. MSL)
NW020	12/09/96	25.28	9.87	TOC Elevations Not Found
NW021	12/09/96	43.00	9.96	TOC Elevations Not Found
NW022	12/09/96	63.88	9.93	TOC Elevations Not Found
G0024	12/15/96	33.30	9.65	1,896
NW030	12/13/96	20.40	5.80	TOC Elevations Not Found
NW030	02/17/97	20.40	5.96	TOC Elevations Not Found
NW031	12/13/96	37.85	6.15	TOC Elevations Not Found
NW031	02/17/97	37.85	6.22	TOC Elevations Not Found
NW032	12/13/96	62.50	5.77	TOC Elevations Not Found
NW032	02/17/97	62.50	5.96	TOC Elevations Not Found
NW040	12/10/96	15.19	4.70	TOC Elevations Not Found
NW041	12/10/96	57.46	4.46	TOC Elevations Not Found
NW050	12/09/96	20.23	7.91	TOC Elevations Not Found
NW051	12/09/96	34.56	8.06	TOC Elevations Not Found
NW052	12/09/96	60.80	7.46	TOC Elevations Not Found
NW060	12/09/96	20.00	10.60	TOC Elevations Not Found
NW061	12/09/96	45.30	9.23	TOC Elevations Not Found
NW062	12/09/96	63.15	10.40	TOC Elevations Not Found
NW070	12/13/96	20.55	7.75	TOC Elevations Not Found
NW070	02/18/97	20.69	7.77	TOC Elevations Not Found
NW071	12/13/96	60.15	7.15	TOC Elevations Not Found
NW071	02/18/97	60.12	7.56	TOC Elevations Not Found
NW080	12/10/96	18.53	5.95	TOC Elevations Not Found
NW081	12/10/96	45.54	6.14	TOC Elevations Not Found
NW082	12/10/96	56.42	5.81	TOC Elevations Not Found
NW100	12/13/96	20.05	10.42	TOC Elevations Not Found
NW100	02/18/97	20.05	10.67	TOC Elevations Not Found
NW101	12/13/96	40.65	10.55	TOC Elevations Not Found
NW101	02/18/97	40.68	10.53	TOC Elevations Not Found
NW102	12/13/96	59.55	10.50	TOC Elevations Not Found
NW102	02/18/97	59.55	10.73	TOC Elevations Not Found
NW120	12/13/96	20.73	6.84	TOC Elevations Not Found
NW120	02/18/97	20.74	6.99	TOC Elevations Not Found
NW121	12/12/96	57.45	6.73	TOC Elevations Not Found
NW122	12/12/96	87.35	6.62	TOC Elevations Not Found
NW130	12/11/96	15.20	5.15	TOC Elevations Not Found
NW130	02/19/97	16.15	5.27	TOC Elevations Not Found
NW131	12/11/96	38.16	5.08	TOC Elevations Not Found
NW131	02/19/97	38.19	5.24	TOC Elevations Not Found
NW132	12/11/96	60.41	5.12	TOC Elevations Not Found
NW132	02/19/97	60.31	5.24	TOC Elevations Not Found
CA211	12/10/96	42.84	8.33	TOC Elevations Not Found
CA212	12/10/96	67.06	8.33	TOC Elevations Not Found
CA213	12/10/96	89.76	8.92	TOC Elevations Not Found
CA250	12/15/96	15.05	5.72	TOC Elevations Not Found
CA251	12/15/96	40.10	5.79	TOC Elevations Not Found
CA252	12/15/96	57.35	5.70	TOC Elevations Not Found

TABLE 3-1

WATER LEVEL MEASUREMENTS FOR OFF-POST WELLS

Well Number	Sample Date	Well Depth (ft. TOC)	Depth to Water (ft. TOC)	Water Level Elevation (ft. MSL)
CA253	12/13/96	86.60	9.45	TOC Elevations Not Found
CA253	02/18/97	86.56	9.66	TOC Elevations Not Found
CA270	12/11/96	17.70	8.59	TOC Elevations Not Found
CA270	02/18/97	17.74	8.66	TOC Elevations Not Found
CA271	12/11/96	40.51	8.07	TOC Elevations Not Found
CA271	02/18/97	4.56	8.16	TOC Elevations Not Found
CA272	12/11/96	58.48	8.05	TOC Elevations Not Found
CA272	02/18/97	58.50	8.19	TOC Elevations Not Found
CA273	12/11/96	85.90	9.20	TOC Elevations Not Found
CA273	02/18/97	85.52	9.25	TOC Elevations Not Found
CA290	12/11/96	17.50	9.69	TOC Elevations Not Found
CA290	02/19/97	17.52	9.92	TOC Elevations Not Found
CA291	12/11/96	38.45	9.65	TOC Elevations Not Found
CA291	02/19/97	38.42	9.87	TOC Elevations Not Found
CA292	12/11/96	59.00	9.73	TOC Elevations Not Found
CA292	02/19/97	59.12	9.93	TOC Elevations Not Found
CA310	12/11/96	18.26	12.00	TOC Elevations Not Found
CA310	02/19/97	17.52	12.28	TOC Elevations Not Found
CA311	12/11/96	42.15	11.82	TOC Elevations Not Found
CA311	02/19/97	42.26	12.16	TOC Elevations Not Found
CA312	12/11/96	60.22	11.45	TOC Elevations Not Found
CA312	02/19/97	60.03	11.79	TOC Elevations Not Found
CA313	12/12/96	86.22	11.22	TOC Elevations Not Found
CA322	12/12/96	57.55	9.98	TOC Elevations Not Found
CA332	12/12/96	56.05	9.12	TOC Elevations Not Found
CA342	12/12/96	57.83	9.95	TOC Elevations Not Found
CA343	12/12/96	83.34	10.37	TOC Elevations Not Found

4.1 SUMMARY OF ANALYTICAL RESULTS

Groundwater samples were sent to ITS for explosives analysis by USAEC approved Method UW51. Table 4-1 summarizes the detected compounds for the groundwater samples collected from CHAAP off-post wells in December 1996 and February 1997. Analytical results for groundwater samples collected from CHAAP off-post wells (present and historical) are summarized in Appendix C.

4.1.1 Chemicals Reported in Groundwater Samples

The primary explosives detected in groundwater samples collected off-post at CHAAP included RDX, HMX, and TNT. Additionally, explosives breakdown products detected included: 1,3,5-trinitrobenzene (TNB), 2,4-dinitrotoluene (DNT), 2-amino-4,6-dinitrotoluene (2DNT) and 4-amino-2, 6-dinitrotoluene (4DNT). Table 4-2 summarizes the frequency and concentrations of detected compounds.

4.2 DATA QUALITY REVIEW

One hundred percent of the analytical data were reviewed following the procedures described below utilizing quality assurance/quality control (QA/QC) data specified in the QAPP addendum (W-C 1996); United States Army Toxic and Hazardous Materials Agency (USATHAMA), Quality Assurance Program, January 1990; and USAEC approved Method UW51. Ten percent of the analytical data underwent full validation using the evaluation criteria established in USAEC Method UW51. The QC elements reviewed in the laboratory analytical data packages included the following:

- Completeness of package
- Review of laboratory case narrative
- Compliance with required holding times
- Presence or absence of compounds in method and field blanks
- Results of laboratory control samples (LS, HS and HSD)
- Surrogate spike recovery in samples
- Results of matrix spike and matrix spike duplicate samples
- Field duplicate samples

The data review process was implemented to assess the quality of data resulting from the field sampling program with respect to the QA/QC objectives established for the project. Data was assessed to evaluate the appropriate usage to support decision making. Data assessment involved a consideration of data use, the decision type, identification of data which were qualified or did not meet project QA/QC requirements, and limitations on data use. The data review was based on the laboratory data summary reports and raw data. The following sections collectively

summarize the data review of Laboratory Lot Numbers (Lot). The following lots were included: ABOZ, ABPA, ABPB, ABPE, ABPD, ABPG, ABPH and ABPI. Findings of the data review process are presented in the following sections.

4.2.1 Data Package Completeness

The data packages were reviewed to verify each Lot contained the data contractually required in the deliverable and that all samples listed on the COC forms were analyzed for the requested parameters. The review indicated that the data packages were complete.

4.2.2 Laboratory Case Narrative

Due to laboratory error, all surrogates and spikes were not spiked at the USAEC specified levels for samples in Lots ABPA, ABPB, and ABPE. All samples were diluted in order to quantify the spiking concentrations. The low spike did not require dilution; however, the spike concentrations were also incorrect. Although spiking concentrations were incorrect they had no impact on data usability, since the spiked compounds were within evaluation criteria

In addition, the laboratory case narrative noted samples which were not confirmed due to co-elution on the confirmation column were reported from the primary column.

No other problems were noted in the laboratory case narratives which are not discussed in subsequent sections.

4.2.3 Holding Times

Review of the sample collection and analyses dates involved comparing the COCs, the summary forms, and the raw data forms for accuracy, consistency, and holding time compliance. The samples were extracted and analyzed within the required holding time, with the exception of the samples from Lots ABPE, ABPD and ABPG. Samples in Lot ABPE were extracted one day outside evaluation criteria and were qualified as estimated (UJ/J) based upon exceeded holding times.

Samples in Lot ABPD were extracted 32 days outside evaluation criteria and the samples in Lot ABPG were extracted 14 days outside the evaluation criteria. Sample results from Lots ABPD and ABPG were rejected (R) and considered unusable due to the exceeded holding times.

Samples from Lots ABPD and ABPG were resampled and resubmitted for analysis in February 1997. Lots ABPH and ABPI contain the resampled groundwater samples for analysis. Samples from Lots ABPH and ABPI were analyzed within acceptable holding times and required no qualification.

4.2.4 Blank Samples

Blank samples were established to assess the existence and magnitude of contamination during laboratory activities. All method blank data was reported below the reporting limit (RL) and required no qualification based on method blank contamination.

All rinsate data were reported below the RL with the exception of Rinsate No. 4 (12/12/96). Rinsate No. 4 reported HMX (0.232 µg/L) above the RL (0.16 µg/L). The analytical results for samples collected on December 12, 1996 were reported non-detect for HMX with the exception of NW121 (0.702 µg/L). NW121 was the last environmental sample collected that day; Rinsate No. 4 was collected after the sample collection of NW121. Contamination found in Rinsate No. 4 can be explained as residual HMX remaining on the sampling device after the collection of NW121; therefore, no qualifications were required.

4.2.5 Surrogate Compound Percent Recoveries

Surrogate recoveries were used to evaluate the accuracy of the analytical measurement on a sample-specific basis. Surrogate recoveries for all samples were within evaluation criteria; therefore, no qualification of data was required.

4.2.6 Low Spikes, High Spikes/High Spike Duplicates Samples

The low spike (LS), high spike/high spike duplicate (HS/HSD) samples were established to assess the accuracy of the analytical method and demonstrate laboratory performance. The evaluation criteria used for LS and HS/HSD was 50 to 150 percent. LS and HS/HSD recoveries were within the evaluation criteria with the following exceptions:

LS recoveries for Lot ABOZ were reported within the evaluation criteria with the exception of tetryl. Tetryl (49 percent) was reported below the evaluation criteria indicating a potential low bias. Tetryl results were reported as non-detect; therefore, tetryl results for samples WB1 and WB2 were qualified as estimated (UJ) based on low LS recovery. HS/HSD recoveries were within the evaluation criteria with the exception of tetryl. Tetryl (39/43 percent) was reported below the evaluation criteria, indicating a potential low bias. Samples were previously qualified due to low LS recoveries and required no additional qualifications. The HS/HSD relative percent differences (RPD) were within evaluation criteria with the exception of 3-nitrotoluene (3-NT). The RPD for 3-NT (27.7 percent) was reported above the evaluation criteria of 25 percent. Associated QC and the remaining HS/HSD compounds were within evaluation criteria; therefore, no qualifications were required based on laboratory precision.

LS and HS/HSD recoveries for Lot ABPB were reported within evaluation criteria for all compounds with the exception of RPD for nitrobenzene (NB). Associated QC and the remaining HS/HSD compounds were within evaluation criteria; therefore, no qualifications were required based on laboratory precision.

LS recoveries for Lot ABPH were reported within the evaluation criteria with the exception of NB. NB (200 percent) was above the evaluation criteria, indicating a potential high bias. NB results were reported non-detect; therefore, no qualifications were required based on high LS recovery. HS/HSD recoveries were reported within evaluation criteria with the exception of tetryl in the HS. Tetryl (33.5 percent) was reported below the evaluation criteria indicating a potential low bias. Results for tetryl were reported as non-detect. Since the LS and HSD recoveries were within evaluation criteria, no qualifications were required based on low HS recovery.

LS recoveries in Lot ABPI were reported within evaluation criteria with the exception 2-nitrotoluene (2NT). 2NT (47.6 percent) was reported below the evaluation criteria, indicating a potential low bias. 2NT results were reported as nondetect; therefore, 2NT results for samples NW130, NW131, NW132, NW133, CA290, CA291, and CA292 were qualified as estimated (UJ) based on low LS recovery. HS/HSD recoveries were reported within evaluation criteria with the exception of tetryl. Tetryl (37.2/34.7 percent) was reported below the evaluation criteria indicating a potential low bias. Results for tetryl were reported as non-detect. Since LS recovery was within evaluation criteria for tetryl, no qualifications were required based on low HS/HSD recovery.

4.2.7 Field Duplicate Analysis

Field duplicate samples were established to determine both field and laboratory precision. Three groundwater field duplicate sample pairs (NW022/NW023; NW132/NW133; NW032/NW033) were collected and submitted to the laboratory for analyses. Field duplicate sample results were all reported as non-detect; therefore, no qualification of data was required based on field duplicate analysis.

4.2.8 Matrix Spike/Matrix Spike Duplicate Analysis

Matrix spike/matrix spike duplicate (MS/MSD) samples were established to assess laboratory accuracy and the effects of matrix inferences on sample preparation and analyses. Three groundwater samples (NW022; NW032, NW132) were collected and submitted to the laboratory to be spiked and analyzed with their respective Lot. The evaluation criteria used for MS/MSD was 50 to 150 percent. MS/MSD recoveries were within the evaluation criteria with the following exceptions:

MS/MSD recoveries for sample NW032 were reported within the evaluation criteria with the exception of NB. NB (178/209 percent) was reported above the evaluation criteria indicating a potential high bias. Results for NB were reported as non-detect; therefore, no qualifications were required based on MS/MSD criteria.

MS/MSD recoveries for sample NW132 were reported within evaluation criteria with the exception of tetryl. Tetryl (34.4/33.0 percent) was reported below the evaluation criteria

indicating a potential low bias. Results for tetryl were reported as non-detect; therefore, tetryl results for samples NW130, NW131, NW132, NW133, CA290, CA291, and CA292 were qualified as estimated (UJ) based on outlying MS/MSD criteria.

4.2.9 PARCC Parameters

The agreement between duplicate analyses within control limits indicates satisfactory precision in a measurement system, and the recovery of predetermined amount of a spike within control limits indicates satisfactory accuracy with respect to the method on the individual sample and general matrix. For all analyses, 97.5 percent of the indicators reviewed for accuracy (matrix spikes, LCS, and/or surrogate spikes) were within evaluation criteria. Ninety-nine percent of the indicators (matrix spike duplicate, high spike duplicate, and/or field duplicates) were within evaluation criteria.

The overall accuracy and precision of the off-post monitoring well groundwater sample data reported for CHAAP LTM Program was concluded to be satisfactory.

Representativeness

Representativeness expresses the degrees to which sample data accurately and precisely represent the characteristics of a population. Representativeness is a qualitative parameter which is of concern in the proper design of the sampling program, such that the sampling locations selected will provide representative data for decisions at CHAAP. Representativeness was assessed using the three field duplicate sample pairs collected at CHAAP. Field duplicate sample pairs were within evaluation criteria; therefore, it was concluded that representativeness was satisfactory.

Comparability

Comparability expresses the confidence with which one data set can be compared to another. In accordance with the QAPP, data are comparable when siting considerations, collection techniques, measurement methods, and reporting procedures are equivalent for the samples within a sample set. Throughout this investigation, appropriate procedures for sampling and shipping were implemented as specified in the Technical Plan and CHAAP QAPP Addendum (W-C 1996). Within this data set, it was concluded that results were comparable to one another.

Completeness

Completeness is defined as the percentage of the total number of analytical results requested which are judged to be valid (including estimated J values) in accordance with the CHAAP QAPP Addendum (W-C 1996). Twenty-three groundwater samples were rejected based on exceeded holding times; however, the samples were recollected and reanalyzed; completeness was determined to be 100 percent, within acceptable DQO limits.

4.3 LABORATORY AUDIT RESULTS

Due to problems encountered during the analysis of project samples, specifically in regards to spiking compound concentrations and holding time exceedances as identified above, W-C completed an on-site audit of ITS Laboratory. The laboratory audit was completed concurrent with the re-sampling effort in February 1997. The laboratory audit included reviewing custody procedures, instrument calibrations and maintenance, documentation, and compliance with laboratory standard operating procedures (SOPs). Results from the laboratory audit indicate the problems encountered during the analysis of the original CHAAP samples appear to be isolated incidents and the proper corrective actions have been implemented. No deviations from accepted practice were observed during the ITS laboratory audit.

4.4 WATER QUALITY PARAMETERS

Final water quality parameter measurements are presented in Table 4-3. Table 4-4 summarizes water quality parameter concentration ranges.

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	NW020		NW021		G0024	
METHOD	UW51		UW51		UW51	
COLLECT DATE	12/09/96		12/09/86		12/15/96	
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	1.2	0.125		0.41	0.125	1.3 0.125
2,4,6-Trinitrotoluene	30	0.29		3.8	0.29	18 0.29
2,4-Dinitrotoluene	0.78	0.233		0.24	0.233	0.26 0.233
2-Amino-4,6-Dinitrotoluene	13	0.173		<	0.173	6.5 0.173
4-Amino-2,6-Dinitrotoluene	8	0.309		1.6	0.309	12 0.309
HMX	4.8	0.16		<	0.16	6.5 0.16
RDX	12	0.558	U	4.6	0.558	21.1 0.558 U

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	NW051	NW081	NW082	NW120	NW121
METHOD	UW51	UW51	UW51	UW51	UW51
COLLECT DATE	12/09/96	12/10/96	12/10/96	02/18/97	12/12/96
	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)					
1,3,5-Trinitrobenzene	<	0.125	<	0.125	<
HMX	1.9	0.16	1.7	0.404	0.7
RDX	4.12	0.558	9.4	2.88	0.558

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	CA210			CA211			CA212			CA250			CA251		
METHOD	UW51			UW51			UW51			UW51			UW51		
COLLECT DATE	12/10/96			12/10/96			12/10/96			12/10/96			12/15/96		
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	<	0.125		<	0.125		<	0.125		<	0.125		0.31	0.125	
HMX	0.41	0.16		1.8	0.16		0.45	0.16		0.61	0.16		3.65	0.16	
RDX	<	0.558		<	0.558		<	0.558		<	0.558		13.6	0.558	U

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

SUMMARY OF DETECTED COMPOUNDS												
FIELD ID	CA252			CA271			CA272			CA312		
METHOD	UW51			UW51			UW51			UW51		
COLLECT DATE	12/15/96			02/18/97			02/18/97			02/18/97		
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	<	0.125		<	0.125		<	0.125		0.127	0.125	
HMX	4.6	0.16		1.32	0.16		1.57	0.16				
RDX	7.2	0.558	U	8.12	0.558		6.29	0.558		4.09	0.558	U

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 USAEC Method UW51

TABLE 4-2

**FREQUENCY AND CONCENTRATION RANGES FOR
DETECTED COMPOUNDS IN GROUNDWATER**

Compound Detected	Frequency of Detects ¹	Concentration Range
Cyclonite (RDX)	11	4.09 µg/L to 21.1 µg/L
Cyclotetramethylenetetranitramine (HMX)	15	4.04 µg/L to 6.5 µg/L
2,4,6-Trinitrotoluene (TNT)	3	3.8 µg/L to 30.0 µg/L
1,3,5-Trinitrobenzene (TNB)	5	0.127 µg/L to 1.3 µg/L
2,4-Dinitrotoluene (DNT)	3	0.24 µg/L to 0.78 µg/L
2-Amino-4, 6-Dinitrotoluene (2DNT)	2	6.5 µg/L to 13 µg/L
4-Amino-2, 6-Dinitrotoluene (4DNT)	3	1.6 µg/L to 12 µg/L

¹Field QC samples (field duplicates, matrix spike/matrix spike duplicates) were not included.

TABLE 4-3

WATER QUALITY PARAMETERS FOR OFF-POST WELLS

Well Number	Sample Date	Redox (mV)	DO (mg/L)	pH	Conductivity (ms/cm)	Temperature (°C)	Turbidity (NTU's)
NW020	12/09/96	311	0.00	6.99	565	11.79	4.7
NW020R	12/09/96	18	0.00	6.82	576	11.90	11
NW021	12/09/96	130	4.45	6.88	491	11.33	40.3
NW022	12/09/96	-89	0.00	7.12	444	11.64	2.1
G0024	12/15/96	146	0.00	6.55	590	11.90	9.8
NW030	12/13/96	29	0.00	6.80	405	12.23	14
NW030	02/17/97	190	0.70	6.65	477	10.21	4.8
NW031	12/13/96	67	4.25	7.56	476	11.31	11.3
NW031	02/17/97	98	1.08	7.29	526	11.35	4.1
NW032	12/13/96	-119	0.00	7.44	456	11.50	6.5
NW032	02/17/97	-69	2.06	6.90	430	11.50	2.2
NW040	12/10/96	-13	0.23	6.03	149.8	11.35	214
NW041	12/10/96	99	3.21	7.11	391	11.85	11
NW050	12/09/96	402	0.00	6.21	1450	12.87	5.6
NW051	12/09/96	357	3.45	6.67	861	11.80	4.6
NW052	12/09/96	-111	10.36	7.09	864	11.83	2.6
NW060	12/09/96	90	5.80	6.22	467	13.10	8.4
NW061	12/09/96	312	3.40	6.70	754	11.94	3.2
NW062	12/09/96	-107	5.65	6.69	665	12.20	3.2
NW070	12/13/96	137	0.00	6.95	432	16.83	12.8
NW070	02/18/97	79	0.00	6.88	513	11.56	3.2
NW071	12/13/96	130	0.00	6.86	429	12.80	6.2
NW071	02/18/97	366	1.72	6.37	450	12.70	1.8
NW080	12/10/96	176	5.37	6.26	664	13.89	14.2
NW081	12/10/96	173	1.35	6.39	801	11.73	2
NW082	12/10/96	139	0.00	6.75	727	11.68	2.2
NW100	12/13/96	164	4.51	6.01	885	13.40	7.4
NW100	02/18/97	273	5.62	5.87	1050	10.83	5.2
NW101	12/13/96	211	0.00	6.58	917	11.80	11.6
NW101	02/18/97	224	0.51	6.37	1164	11.93	3.8
NW102	12/13/96	122	0.00	6.52	700	11.99	6.1
NW102	02/18/97	387	3.07	6.05	693	12.00	2.2
NW120	12/13/96	102	1.11	6.42	447	13.13	27.7
NW120	02/18/97	389	3.43	5.84	469	11.37	14.4
NW121	12/12/96	24	0.00	7.05	719	12.40	14.8
NW122	12/12/96	-108	0.00	7.12	347	12.69	4.2
NW130	12/11/96	159	5.16	6.63	510	12.97	10.2
NW130	02/19/97	244	7.76	6.54	609	9.60	12.8
NW131	12/11/96	3.06	8.61	6.41	480	12.37	1.5
NW131	02/19/97	261	10.59	6.22	536	12.46	4.3
NW132	12/11/96	169	3.77	6.42	521	12.48	4.1
NW132	02/19/97	373	9.57	5.97	510	12.48	2.5
CA210	12/10/96	119	1.26	6.28	1762	12.80	*
CA211	12/10/96	75	0.00	6.51	927	11.25	34.4
CA212	12/10/96	12	0.00	7.03	691	11.46	6.1
CA213	12/10/96	-109	0.00	7.26	357	11.93	2.8

TABLE 4-3

WATER QUALITY PARAMETERS FOR OFF-POST WELLS

Well Number	Sample Date	Redox (mV)	DO (mg/L)	pH	Conductivity (ms/cm)	Temperature (°C)	Turbidity (NTU's)
CA250	12/15/96	212	5.51	6.61	643	13.30	13.7
CA251	12/15/96	137	2.25	6.55	695	12.15	4.6
CA252	12/15/96	103	0.00	6.72	774	11.97	4.4
CA253	12/13/96	-97	0.00	7.21	364	12.11	6.4
CA253	02/18/97	-50	0.00	7.12	441	12.00	2.5
CA270	12/11/96	132	1.54	6.55	467	12.95	15.5
CA270	02/18/97	368	2.30	5.96	454	9.30	16.4
CA271	12/11/96	132	11.14	6.39	420	12.66	3.7
CA271	02/18/97	400	8.20	5.40	520	12.66	3.1
CA272	12/11/96	114	4.74	6.74	492	12.60	4.1
CA272	02/18/97	230	2.75	6.61	549	12.69	3.8
CA273	12/11/96	132	0.57	7.36	354	12.77	1.0
CA273	02/18/97	-67	7.74	6.70	325	12.80	2.3
CA290	12/11/96	109	1.93	6.82	712	12.50	5.8
CA290	02/19/97	329	3.30	6.29	734	8.76	9.1
CA291	12/11/96	125	3.90	6.47	441	11.75	4.2
CA291	02/19/97	254	7.53	6.41	481	11.74	1.6
CA292	12/11/96	120	0.00	6.61	365	11.75	4.2
CA292	02/19/97	352	11.32	6.20	357	11.91	2.6
CA310	12/11/96	127	0.00	6.85	961	13.62	134
CA310	02/19/97	365	3.21	6.48	668	11.41	26.1
CA311	12/11/96	144	3.00	6.82	697	12.73	54.3
CA311	02/19/97	247	2.84	6.74	826	12.80	1.6
CA312	12/11/96	221	0.20	6.91	540	12.61	1.1
CA312	02/19/97	386	4.89	6.25	503	12.71	2.6
CA313	12/12/96	-73	0.00	7.26	358	12.64	1.3
CA322	12/12/96	154	0.00	6.68	581	13.46	10.5
CA332	12/12/96	90	0.00	6.71	397	12.44	5.5
CA342	12/12/96	247	0.82	7.05	800	11.21	3.8
CA343	12/12/96	98	0.00	7.04	607	11.66	3.3

* Outside instrument calibration range.

Water quality parameters were measured downhole using the HydroLab Data Sonde 3.

TABLE 4-4

WATER QUALITY PARAMETER RANGES

Water Quality Parameters (Units)	Measurement Range
Redox (mV)	-119 to 402
Dissolved Oxygen (mg/L)	0.00 to 11.32
pH	5.40 to 7.56
Conductivity (ms/cm)	347 to 1762
Temperature (⁰ C)	8.76 to 16.83
Turbidity (NTUs)	1.0 to 214 ¹

¹ Sample CA210 was outside the instrument calibration range.

This section provides a description of the nature and extent of explosives observed in the groundwater off-post at CHAAP. RDX, HMX, and TNT were selected for this discussion because of their frequency of occurrence, magnitude of detected concentrations, and potential adverse health effects.

Health advisory explosives concentrations levels have been established for CHAAP in the ROD by the USEPA and USAEC. These levels include:

- 2 ppb for RDX and TNT
- 400 ppb for HMX

Nature and extent discussions will generally focus on contaminant concentrations above these levels.

5.1 GROUNDWATER

The off-post groundwater plume consists primarily of RDX and HMX, which range in concentrations up to 21.1 µg/L (RDX) and 6.5 µg/L (HMX) (Figures 5-1 and 5-2). TNT was only detected at locations near the northeast edge of the CHAAP facility boundary with concentrations up to 30 µg/L (Figure 5-4). Explosives breakdown products including DNT and TNB were detected at the site; however, these explosives were only observed at the start of the plume and in scattered locations at the end of the plume with concentrations below 0.5 µg/L.

5.1.1 Horizontal Extent of Groundwater Plume

Horizontal extent of total explosives, RDX and TNT in December 1996 are shown on Figures 5-1, 5-2, and 5-4, respectively. The explosives plume originates on the northeast edge of the CHAAP Facility and extends over 21,000 feet northeast into the surrounding rural and urban areas.

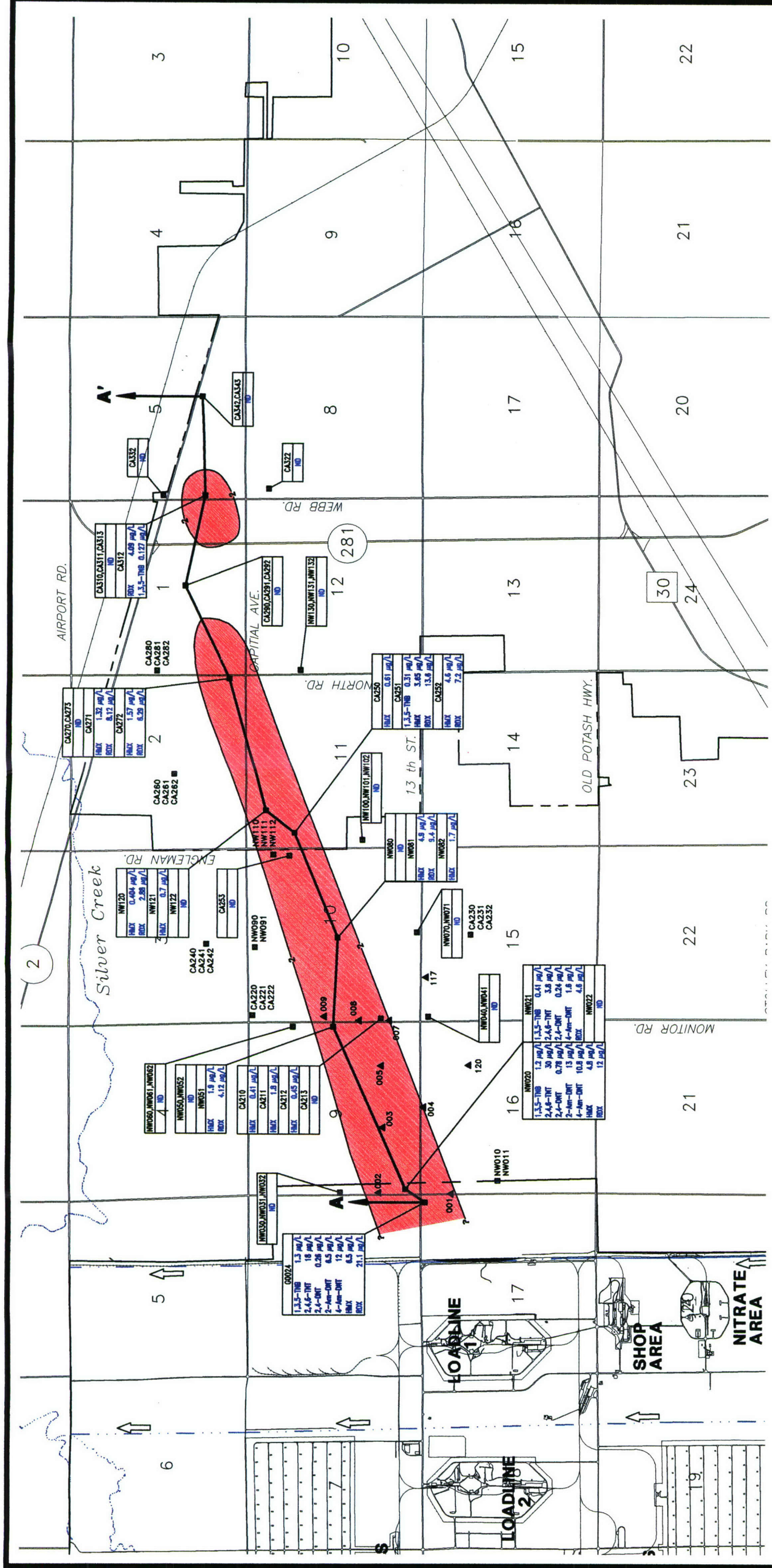
The axis of the explosives plume trends southwest to northeast (Figure 5-1). The highest explosives concentrations were located at the facility boundary. Explosives concentrations declined to the northeast, dissipating near well cluster CA290. Low explosives concentrations (4 µg/L RDX) were detected at well cluster CA310, but only in the intermediate well. Explosives were not detected downgradient of CA310.

July 1994 RDX concentrations are shown on Figure 5-3. In general, RDX concentrations have decreased slightly from 1994 to 1996 at most of the monitoring well clusters. For example, RDX concentrations have decreased at NW020 (26 to 12 µg/L), NW081 (17 to 9.4 µg/L), CA251 (from 28 to 13.6 µg/L), CA272 (15 to 6.29 µg/L), CA292 (5.85 µg/L to ND), and CA342 (1.07 µg/L to ND).

5.1.2 Vertical Extent of Groundwater Plume

Interpreted vertical extent of the explosives plume is shown on geologic cross-section A-A' (Figure 5-5). Stratigraphic changes between the Grand Island Formation and Fullerton Formation profiles have apparently limited the vertical migration of groundwater contamination to the Grand Island Formation (alluvial sand aquifer).

The plume was detected at depths of 6 to 57 feet bgs and approximately 5 to 33 feet below the water table. There appears to be a clean zone at the shallow water table in the distal edges of the plume. Explosives were not detected in the deep aquifer (Holdrege Formation). The Fullerton Formation appears to act as a natural barrier stopping the vertical migration of explosives to the underlying Holdrege Formation (gravel-paleovalley fill aquifer).



LEGEND:

- FACILITY BOUNDARY
- GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- (281) STATE ROUTE
- (30) U.S. ROUTE

G0001 ON-POST GROUNDWATER MONITORING WELL

NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL

City of Grand Island Piezometer

Off-Post Irrigation Well

Horizontal Extent of Explosives (Concentrations >2µg/L)-December 1996

Geologic Cross Section

NOTE:

ON-POST AST/UST MONITORING WELLS AND MINIWELLS ARE NOT SHOWN.

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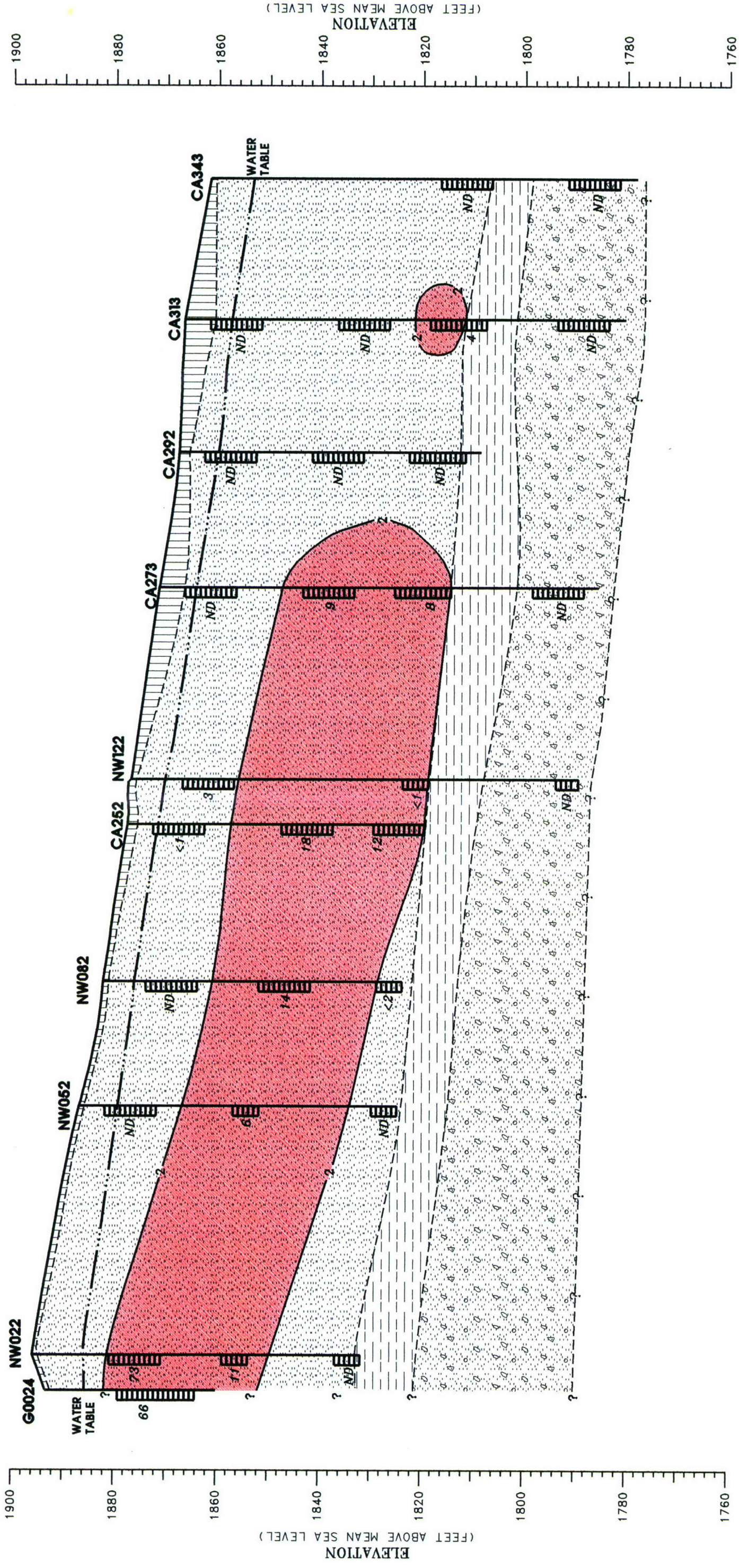
CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
LOCATION: CORNHUSKER AAP
TITLE: **EXPLOSIVES PLUME-DECEMBER 1996**

PROJ. NO. **K9642**
CHK'D. BY
DATE 07/09/97
FIG. NO. **5-1**

July 07, 1997 11:32:03 a.m.
Drawing: T:\CAAP\T01.05.2\F5-1K9642.DWG (TSSM)
Xrefs: REF-01.DWG

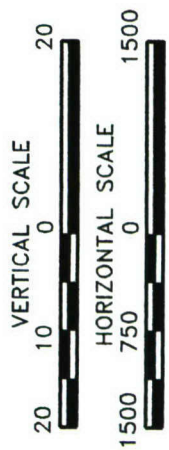
A
SOUTHWEST

A'
NORTHEAST



LEGEND

- 61 MONITORING WELL SCREEN INTERVAL WITH DECEMBER 1996 TOTAL EXPLOSIVES CONCENTRATION
- 2 EXPLOSIVES PLUME
- TOPSOIL/CLAY AND SILT
- GRAND ISLAND FORMATION (ALLUVIAL SAND AQUIFER)
- FULLERTON FORMATION (BLUE CLAY AQUITARD)
- HOLDREGE FORMATION (GRAVEL-PALEOVALEY FILL AQUIFER)
- WATER TABLE-DECEMBER 1996



NOTE : VERTICAL EXAGGERATION IS 75:1

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CLIENT: U.S. ARMY ENVIRONMENTAL CENTER	
LOCATION: CORNHUSKER AAP	
TITLE: GEOLOGIC CROSS-SECTION A-A'	
PROJ. NO. K9642	CHK'D. BY
DATE 04/07/97	
FIG. NO. 5-5	

- ICF Kaiser Engineers (ICF-Kaiser). 1995. Cornhusker Army Ammunition Plant Remedial Investigation and Feasibility Study, Technical Plan, Final Document. Prepared for United States Army Environmental Center (USAEC). June.
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- Watkins-Johnson Environmental, Inc. 1993. Site Characterization Document. Cornhusker Army Ammunition Plant. Remedial Investigation and Feasibility Study. Prepared for United States Army Environmental Center (USACE). June.
- Woodward-Clyde (W-C). 1996. Project Plan Addendum for December 1996 Groundwater Sampling Event. Cornhusker Army Ammunition Plant. Prepared for United States Army Environmental Center (USACE). December.

Appendix A

Chain-of-Custodies

101 South 108 Avenue, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

Project Name Cornhusker Army Ammunition Plant				Project No. K9642		Tark		Analytical Parameters											
Project Location CHAP				Project Manager Dave Conry															
Sampler(s) Terry Thoner																			
Sample		Type		Sample Identification		Matrix		Containers											
Date	Time	Comp.	Grab				No.	Type	Remarks										
11/18/96	1415		X	111896 - WB1		WJA	2	1-Liter	X R96-4-43282-1										
11/18/96	1400		X	111896 - WB2		"	2	1-Liter	X 2M JLN 97										
				LB1															
				BS1															
				BD1															
				MS1															
				SD1															
ORIGINAL																			
Signatures				Date		Time		Shipping Details											
Relinquished by: 				1-18-96				Method of Shipment											
Received by:								Airbill No.											
Relinquished by:								Lab Address											
Received for Laboratory by: 						11/19/96 1015		COOLER TEMPERATURE WHEN RECEIVED 4 °C											

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

#1083

Page 1 of 1
COOLER #

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks						
CHART		K9642		DAVE CONNLY		WOODWARD-CLYDE		15m								
Project Location		Project Manager		Sampling Company		Containers										
GRAND ISLAND, NE																
Sampler(s)		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Matrix		Containers No.		Type		
Date	Time	Type	Comp.	Grab												
12/19/16	1120	V			NW020	0	0	SWINGING PUMP	12	1-1 AMPHIB						
	1140				NW021											
	1250				NW022											
					NN022MS											
					NN022MS											
	1315				NN022MS											
	1530				NN050											
	1500				NN051											
	1459				NN052											
	1734				NN060											
	1556				NN061											
	1653				NN062											
	1735				KINSTATE #1											

* Only applicable for nonaqueous samples

Signatures		Date		Time		Shipping Details		Special Instructions	
Relinquished by:		12/10/16		800am		Method of Shipment		COOLER TEMPERATURE WHEN RECEIVED °C	
Received by:						Airbill No. 0125215477		173	
Relinquished by:						Lab Address		1089 EAST CONNORS BLVD.	
Received for laboratory by:		12/19/16		1110		RICHARDSON, TX 75081			

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Pages 1, 2, 3

Project Name C-HAPP		Project No. K01642		Analytical Parameters							
Project Location GRAND ISLAND, NE		Project Manager DAVE DONOVY									
Sampler(s) B HARRIS, E HARRIS, JMETTNER, VERONISKE		Sampling Company NOOD PLASD - CLYDE									
Sample Date	Time	Comp.	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks
12-16-96	1758		✓	NW080	0	0	SAMPLE	UNLATCHED	0	1 X ANALYZE	RRG-6
	1245			NW081							
	1704			NW082							
	1553			CA 210							
	1530			CA 211							
	1459			CA 212							
	1416			CA 213							
	1325			NW040							
	1700			NW041							
	1815			PINSTATE #2							
* Only applicable for nonaqueous samples											

Signatures		Shipping Details		Special Instructions	
Relinquished by:		Date	12-11-96	Method of Shipment	FED X
Received by:				Airbill No.	9252158392
Relinquished by:				Lab Address	175 1089 CREST COLIN - BLVD McHARRISON TX, 75061
Received for Laboratory by:			12/12/96		

COOLER TEMPERATURE WHEN RECEIVED
44.4 °C

SCREENED FOR RADIOACTIVITY

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Page 1 of 2
COOLER #

10/4/00

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks					
WOODWARD-CLYDE		K9642		DAVE CONNOR		WOODWARD-CLYDE									
Sampler(s)		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Matrix		Containers No.		Type	
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks			
11/11/00	1023	✓			CA 2712	0	0	WOODWARD-CLYDE	WOODWARD-CLYDE	2	12/1/00	12/1/00			
10/29/00		✓			CA 2711										
10/4/00		✓			CA 2710										
10/4/00		✓			CA 2710MS										
10/4/00		✓			CA 2710MS										
10/5/00		✓			CA 2713										
12/15/00		✓			CA 2712										
10/50		✓			CA 2713										
13/40		✓			CA 2711										
13/10		✓			CA 2710										
14/55		✓			NW 130										
14/15		✓			NW 131										
14/20		✓			NW 132										
16/40		✓			CA 2712										
16/15		✓			CA 2711										

* Only applicable for nonaqueous samples

Signatures		Date	Time	Shipping Details		Special Instructions	
Relinquished by: <i>[Signature]</i>		12-12-00	8:00 PM	Method of Shipment: FedEx		ORIGINAL	
Received by: <i>[Signature]</i>				Airbill No.			
Relinquished by:				Lab Address: ITS			
Received for Laboratory by: <i>[Signature]</i>		12/29/00	10:00	KIEH DARRON		COOLER TEMPERATURE WHEN RECEIVED: 54.4°F	

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks	
Project Location		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Containers No. Type	
Date	Time	Type	Comp	Grab	Sample	Begin Depth	End Depth	Method	Matrix	No.	Type
12-11-96	1715	✓			CA 310	0	0	SP-2000	DATA	2	12 AMP
12-11-96	1915	✓			BRIDGE #3	0	0	+	+	+	+
<div style="display: flex; justify-content: space-between;"> <div> <p>Project Name: CHAP</p> <p>Project Location: GRAND BLVD, NE</p> <p>Sampler(s): PARKER, B. HENNINGSON, J. METCALE, J. BORDO</p> </div> <div> <p>Project No.: K9642</p> <p>Project Manager: DAVE CONLY</p> <p>Sampling Company: WOODWARD-CLYDE</p> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div> <p>Received by: <i>[Signature]</i></p> <p>Received for Laboratory by: <i>[Signature]</i></p> </div> <div> <p>Date: 12-11-96</p> <p>Time: 1000</p> </div> <div> <p>Method of Shipment: FedEx</p> <p>Airbill No. 175</p> <p>Lab Address: 1089 E. COLLEGE BLVD, RICHMOND, TX 75081</p> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div> <p>Relinquished by: <i>[Signature]</i></p> <p>Relinquished by: <i>[Signature]</i></p> </div> <div> <p>Date: 12-11-96</p> <p>Time: 1000</p> </div> <div> <p>Method of Shipment: FedEx</p> <p>Airbill No. 175</p> <p>Lab Address: 1089 E. COLLEGE BLVD, RICHMOND, TX 75081</p> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div> <p>Relinquished by: <i>[Signature]</i></p> <p>Relinquished by: <i>[Signature]</i></p> </div> <div> <p>Date: 12-11-96</p> <p>Time: 1000</p> </div> <div> <p>Method of Shipment: FedEx</p> <p>Airbill No. 175</p> <p>Lab Address: 1089 E. COLLEGE BLVD, RICHMOND, TX 75081</p> </div> </div>											

* Only applicable for nonaqueous samples

Special Instructions

COOLER TEMPERATURE
WHEN RECEIVED
____ °C



101 South 108th Ave., Omaha, NE 68154
(402) 334-8181 Fax (402) 334-1984

**CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS**

Project Name		Project No.		Analytical Parameters									
Project Location		Project Manager		Analytical Parameters									
Sampler(s)		Sampling Company		Analytical Parameters									
Sample	Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Containers Type	Remarks
✓	12/13/84	1258				NW030	0	0	SWAMP	6Mx100	2	1 Lamber	RAC-8
✓	1220					NW032							
✓	1425					CA 253							
✓	1520					NW120							
* Only applicable for nonaqueous samples													
Signatures						Date		Time		Shipping Details		Special Instructions	
Relinquished by: <i>Paul A. Hedley</i>						12/13/84		1800		Method of Shipment: <i>FEDEX</i>		COOLER TEMPERATURE WHEN RECEIVED: <i>4.8°C</i>	
Received by:										Airbill No. <i>9252158425</i>			
Relinquished by:										Lab Address: <i>175 1089 CONUNY BLVD RICHARDSON TX 75081</i>			
Received for Laboratory by: <i>Paul A. Hedley</i>						12/13/84							

[illegible]



Woodward-Clyde
101 South 108th Ave., Omaha, NE 68154
(402) 334-8181 Fax (402) 334-1984

[illegible]

FOR IRPIMS/IRDMIS

Woodward-Clyde

101 South 108th Ave., Omaha, NE 68154

(402) 334-8181 Fax (402) 334-1984

[illegible]

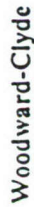
CHAIN OF CUSTODY RECORD FOR IRPMS/IRDMIS

Page ____ of ____
COOLER # _____

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters				
Cedar		K01642		DAVE COOK		WATER - CLVD		0015				
Project Location		Cedar Island, NE		Project Manager		Sampling Company		Analytical Parameters				
Sampler(s)		C. HARRIS, J. METCALF, B. KENTON, J. J. JONES		Project Manager		Sampling Company		Analytical Parameters				
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Containers Type	Remarks
12-17-12	0:55	✓			CA 312	0	0	SUPPLY	GARRE	2	12 AMBER	RAQ-9
11:00		✓			CA 313							
12:05		✓			CA 317							
13:35		✓			CA 343							
14:05		✓			CA 342							
16:15		✓			NW 122							
17:20		✓			NW 121							
18:20		✓			UNSATURATED							
* Only applicable for nonaqueous samples												
Relinquished by		Signatures		Date		Time		Shipping Details		Special Instructions		
C. Harris		[Signature]		12/13/16				Method of Shipment FEDEX - X				
Received by:		[Signature]						Airbill No.				
Relinquished by:		[Signature]						Lab Address				
Received for Laboratory by:		C. Harris		12/16/16		1100		Lab Address		15 1051 GLOVING RD. WILMINGTON TX 75401		
										COOLER TEMPERATURE WHEN RECEIVED ____ °C		

CHAIN OF CUSTODY RECORD FOR IRPMS/IRDMIS

Project Name CHAAT		Project No. K9642		Analytical Parameters		0017					
Project Location GRAND ISLAND, NE		Project Manager DAVE CONVY									
Sampler(s) JOHNSON, RICHARD		Sampling Company NORTHWARD-CLYDE									
Sample	Date	Time	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks
	12/15/16	1104	✓	CA 752D	0	0	SURF	WATER	2	1 L AMP	✓
	1145		✓	CA 752			I	I		I	✓
	1223		✓	CA 751			I	I		I	✓
	1244		✓	CA 754			I	I		I	✓
* Only applicable for nonaqueous samples											
Relinquished by:		Date		Time		Shipping Details		Special Instructions			
Received by:		12/16/16		200pm		Method of Shipment Fed - X					
Relinquished by:						Airbill No. 925 458 521					
Received for Laboratory by:		12/18/96		1050		Lab Address 175 1089 E. LOUISIANA BLVD MILWAUKEE, WI 53211					



Woodward-Clyde
101 South 108th Ave., Omaha, NE 68154
(402) 334-8181 Fax (402) 334-1984

Winters

Page ____ of ____
COOLER #

[illegible]

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Page 1 of 1
COOLER # 1

Project Name CEDAR HUSKER BERRY PLANT (CHAP)				Project No. K9702		Analytical Parameters					
Project Location WYOMING ISLAND				Project Manager DAVE CONY							
Sampler(s) B HERRICK KAMP, M. Sonderman 2-18-97				Sampling Company WOODWARD-CLYDE							
Sample Date	Time	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks	
2-18-97	0830	✓	NW070	0	0	S. 100m	Gravel	2	1 & 2m	8 40c	
2-18-97	0911	✓	NW071							9	
	1002	✓	NW100							10	
	1025	✓	NW102							11	
		✓	NW101	2-18-97						11	
			COOLER #2							11	
				COOLER TEMPERATURE WHEN RECEIVED				SCREENED FOR RADIOACTIVITY			
				°C							
* Only applicable for nonaqueous samples											
Relinquished by:				Date		Time		Shipping Details		Special Instructions	
Received by:				7-18-97		1035a		Method of Shipment Fed-Ex Express		Airbill # 3257067752	
Relinquished by:								Airbill No. 3257067723		Lab Address 8455 175 1084 E. CONNORS BLVD KILMORNOCK TX 75081	
Received for Laboratory by:				2/19/97		1020					

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Page 1 of 1
COOLER # 2

Core # 2

Project Name CHAAS		Project No. K9702		Analytical Parameters		Remarks	
Project Location GRAND ISLAND		Project Manager DAVE CONY					
Sampler(s) M. SONTAGNA		Sampling Company WOODWARD-CLYDE					
Sample Identification 2-18-97		Sample* 0		Containers 2			
Sample* 0		Begin Depth 0		End Depth 0			
Type ✓		Sampling Method S.F. WATER		Matrix ✓			
Time 1045		Sample* 0		Containers 2			
Time 1136		Sample* 0		Containers 2			
Time 1225		Sample* 0		Containers 2			
Time 1349		Sample* 0		Containers 2			
Time 1410		Sample* 0		Containers 2			
Time 1500		Sample* 0		Containers 2			
Time 1600		Sample* 0		Containers 2			
Time 1700		Sample* 0		Containers 2			
Time 1800		Sample* 0		Containers 2			
Time 1900		Sample* 0		Containers 2			
Time 2000		Sample* 0		Containers 2			
Time 2100		Sample* 0		Containers 2			
Time 2200		Sample* 0		Containers 2			
Time 2300		Sample* 0		Containers 2			
Time 2400		Sample* 0		Containers 2			
Time 2500		Sample* 0		Containers 2			
Time 2600		Sample* 0		Containers 2			
Time 2700		Sample* 0		Containers 2			
Time 2800		Sample* 0		Containers 2			
Time 2900		Sample* 0		Containers 2			
Time 3000		Sample* 0		Containers 2			
Time 3100		Sample* 0		Containers 2			
Time 3200		Sample* 0		Containers 2			
Time 3300		Sample* 0		Containers 2			
Time 3400		Sample* 0		Containers 2			
Time 3500		Sample* 0		Containers 2			
Time 3600		Sample* 0		Containers 2			
Time 3700		Sample* 0		Containers 2			
Time 3800		Sample* 0		Containers 2			
Time 3900		Sample* 0		Containers 2			
Time 4000		Sample* 0		Containers 2			
Time 4100		Sample* 0		Containers 2			
Time 4200		Sample* 0		Containers 2			
Time 4300		Sample* 0		Containers 2			
Time 4400		Sample* 0		Containers 2			
Time 4500		Sample* 0		Containers 2			
Time 4600		Sample* 0		Containers 2			
Time 4700		Sample* 0		Containers 2			
Time 4800		Sample* 0		Containers 2			
Time 4900		Sample* 0		Containers 2			
Time 5000		Sample* 0		Containers 2			
Time 5100		Sample* 0		Containers 2			
Time 5200		Sample* 0		Containers 2			
Time 5300		Sample* 0		Containers 2			
Time 5400		Sample* 0		Containers 2			
Time 5500		Sample* 0		Containers 2			
Time 5600		Sample* 0		Containers 2			
Time 5700		Sample* 0		Containers 2			
Time 5800		Sample* 0		Containers 2			
Time 5900		Sample* 0		Containers 2			
Time 6000		Sample* 0		Containers 2			
Time 6100		Sample* 0		Containers 2			
Time 6200		Sample* 0		Containers 2			
Time 6300		Sample* 0		Containers 2			
Time 6400		Sample* 0		Containers 2			
Time 6500		Sample* 0		Containers 2			
Time 6600		Sample* 0		Containers 2			
Time 6700		Sample* 0		Containers 2			
Time 6800		Sample* 0		Containers 2			
Time 6900		Sample* 0		Containers 2			
Time 7000		Sample* 0		Containers 2			
Time 7100		Sample* 0		Containers 2			
Time 7200		Sample* 0		Containers 2			
Time 7300		Sample* 0		Containers 2			
Time 7400		Sample* 0		Containers 2			
Time 7500		Sample* 0		Containers 2			
Time 7600		Sample* 0		Containers 2			
Time 7700		Sample* 0		Containers 2			
Time 7800		Sample* 0		Containers 2			
Time 7900		Sample* 0		Containers 2			
Time 8000		Sample* 0		Containers 2			
Time 8100		Sample* 0		Containers 2			
Time 8200		Sample* 0		Containers 2			
Time 8300		Sample* 0		Containers 2			
Time 8400		Sample* 0		Containers 2			
Time 8500		Sample* 0		Containers 2			
Time 8600		Sample* 0		Containers 2			
Time 8700		Sample* 0		Containers 2			
Time 8800		Sample* 0		Containers 2			
Time 8900		Sample* 0		Containers 2			
Time 9000		Sample* 0		Containers 2			
Time 9100		Sample* 0		Containers 2			
Time 9200		Sample* 0		Containers 2			
Time 9300		Sample* 0		Containers 2			
Time 9400		Sample* 0		Containers 2			
Time 9500		Sample* 0		Containers 2			
Time 9600		Sample* 0		Containers 2			
Time 9700		Sample* 0		Containers 2			
Time 9800		Sample* 0		Containers 2			
Time 9900		Sample* 0		Containers 2			
Time 10000		Sample* 0		Containers 2			

* Only applicable for nonaqueous samples

Signatures		Shipping Details		Special Instructions	
Relinquished by: <i>[Signature]</i>		Method of Shipment: PERISHABLE EXPRESS		Airbill # 3257067763	
Received by: <i>[Signature]</i>		Airbill No. 3257067763			
Relinquished by:		Lab Address: 1084 E COLLINS BLVD MC HARRISON TX 75081			
Received for Laboratory by: <i>[Signature]</i>		Date: 2/19/97		Time: 1000	

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

2-18-97

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks	
CHAAP		K9702		DAVE CONY		WOODWARD-CLYDE					
Project Location		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Containers	
GRAND ISLAND											
Sampler(s)		Type		Comp.		Grab		Matrix		Type	
Date		Time		Sample		End Depth		Method		No.	
2-18-97	1350	-		CA 272	0	0	S. PUMP	WATER	2	2	16
	1440	-		CA 270							17
	1530	-		CA 271							18
	1651	-		CA 272							19
COOLER TEMPERATURE WHEN RECEIVED											
SCREENED FOR RADIOACTIVITY											
* Only applicable for nonaqueous samples											
Relinquished by:		Signatures		Date		Time		Shipping Details		Special Instructions	
				2-18-97		1658		Method of Shipment FEDERAL EXPRESS		Airbill # 3257067774	
Received by:								Airbill No. 3257067774			
Relinquished by:								Lab Address 175 1081E LOVELL BLVD CICERO SD TX 57081			
Received for Laboratory by:				2/19/97		1015				Airbill # 3257067774	

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

#24

2-18-97

Project Name CHAS		Project No. KAT02		Analytical Parameters 1000								
Project Location GRAND ISLAND		Project Manager DAVEENY										
Sampler(s) WINDWARD		Sampling Company WOODWARD-CLYDE										
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks
2-18-97	1700	-			CA 311	0	0	SPMP	CA 311	2	1 LITE	20
I	1720	-			CA 310	I	I	I	I	I	I	21
I	1740	-			KINSA TE #2	I	I	I	I	I	I	22
COOLER TEMPERATURE WHEN RECEIVED °C												
SCREENED FOR RADIOACTIVITY												
* Only applicable for nonaqueous samples												
Relinquished by:		Signatures		Shipping Details		Special Instructions						
Received by:		Date		Time		Method of Shipment						
Relinquished by:		Date		Time		Airbill No.						
Received for Laboratory:		Date		Time		Lab Address						
		2-18-97		1751		108th & COLUMBIA BLVD WICHITA, KS 67201						
						Airbill # 3257067764						
						Lab Address						
						2/18/97 1005						

2-19-97

CHAIN OF CUSTODY RECORD
FOR IRPMS/IRDMIS

COVER (H)

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks	
Grand Island		K9702		Dave Conly		Woodward-Clyde					
Sampler(s)		M. SUTHERMAN, MICHAEL WILLIAMS		Sample Identification		Sample* Begin Depth		Sample* End Depth		Containers No. Type	
Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	No.	Type
2-19-97	0845	✓			CA 292	0	0	S. Pump	GWA 100	2	12 AMP/12
	0900	✓			CA 291						
	0935	✓			CA 290						
	0937	✓			KILN-DATE #3						
COOLER TEMPERATURE WHEN RECEIVED °C											
SCREENED FOR RADIOACTIVITY											
* Only applicable for nonaqueous samples											
Signatures		Date	Time	Shipping Details		Special Instructions					
Relinquished by: [Signature]		2-19-97		Method of Shipment: FRODOX EX 1200							
Received by: [Signature]				Airbill No. 3597604640		Airbill # 3597604640					
Relinquished by:				Lab Address: 1089 E COLLINS BLVD MILWAUKEE, WI 53211							
Received for Laboratory by: [Signature]		2/20/97	0950								

[illegible]

2-19-97

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

#3

Page 1 of 7
COOLER #

Project Name CHAMP		Project No. K9702		Analytical Parameters					
Project Location GRAND ISLAND		Project Manager DAVE CONLY		Remarks 15.00 RPT 12-10 400					
Sampler(s) M. SANDERMAN		Sampling Company WOODWARD-CLYDE							
Sample Date	Time	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type
2-19-97	1730	✓	NW 12.5	0	0	S.PUMP	GRASS	2	12.5 LITER
COOLER TEMPERATURE WHEN RECEIVED _____ °C				SCREENED FOR RADIOACTIVITY					

* Only applicable for nonaqueous samples

Signatures		Shipping Details	
Relinquished by:	Date	Time	Method of Shipment
<i>[Signature]</i>	2/19/97		PENGEAL EXPRESS
Received by:			Airbill No.
			359760462
Relinquished by:			Lab Address
			1057 E. LEWINS BLVD RICHARDSON TX 75081
Received for Laboratory by:			Airbill #
<i>[Signature]</i>	2/20/97	1800	359760462

Appendix B

Daily Quality Control Reports

Date 12/9/96**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
---	--------------	---	---	----	---	---

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid		
				#1	

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski

Visitors Present: ~~none~~ Terry Thoren (Woodward-Clyde, Omaha)Subcontractor Personnel: none

Work Performed/Sampling Activities: water sampling collection
of the following water samples from wells:

NW020, 021, 022; NW050, 51, 52, NW060, 61, 62

The following QA samples were collected:

NW022 ms, NW022 ms10, NW023 (NW022 duplicate),
 NW022-QA (MRD split), Pinate #1

Quality Control Activities (including field calibrations):

Calibration verification of Data Sonda III (3.1 and 3.3 units); PID mini ray were calibrated to using 100 ppm isobutylene
Health and Safety Levels and Activities:
Level D
Problems Encountered/Corrective Actions Taken:
Data Sonda 3 (field parameter unit): not giving same response to the same well or even DI water relative to Redox - we call the vendor, they will send a standardization solution
Downtime/Standby:
~ 2 - 2½ hours
Special Notes:

By Bruce Hedy Title Site Mgr
Ryan R. Herald

Date 12/10/96**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
---	---	--------------	---	----	---	---

Weather

Bright Sun	Clear	Overcast X	Rain	Snow
Below 0	0-20	20-40 X	40-60	60-up
Still	Moderate X	High	Report No. #2	
Dry	Moderate X	Humid		

Temp

Wind

Humidity

W-C PM: Dave ConvyUSAEC PO: Heather BlackProject: CHAAPProject No.: K9642

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski

Visitors Present: T. Thorne (Woodward-Clyde, Omaha)
Craig Johnson (Woodward-Clyde, Omaha)Subcontractor Personnel: NONEWork Performed/Sampling Activities: collected (4W51) explosiveSamples at monitoring well NW80, 81, 82, CA 210, 211,
212, 213, NW40, 41

Quality Control Activities (including field calibrations):

CALIBRATED Data Sonde III (3.1 & 3.3)	
"	PID mini RAY were CALIBRATED to 100ppm w/ 100 ISO
Rinseate # 2	
Health and Safety Levels and Activities: Level "D"	
Problems Encountered/Corrective Actions Taken:	
Data sonde III (3.1) unit not working, awaiting standard solution via Fed Ex. Verification of the new standards takes time as well.	
Downtime/Standby:	
~ 3 hours	
Special Notes:	

By Ryan R. Herold Title Environmental Scientist
Burt A. Healy

Date 12-11-96**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
---	---	---	---	----	---	---

Weather

Bright Sun	Clear	Overcast	Rain	Snow
Below 0	0-20	20-40	40-60	60-up
Still	Moderate	High	Report No. H3	
Dry	Moderate	Humid		

Temp

Wind

Humidity

W-C PM: Dave ConvyUSAEC PO: Heather BlackProject: CHAAPProject No.: K9642

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski

Visitors Present:

None

Subcontractor Personnel:

None

Work Performed/Sampling Activities:

collected (4w51) explosive
Samples at monitoring wells CA290, 291, 292,
CA270, 271, 272, 273, NW130, 131, 132, CA310
311, 312,

Quality Control Activities (including field calibrations):

calibration verification
of Data Sonde III (3.17, 3.3), Orion SA250 redox, mini
ray PIP.

PiDs were calibrated to 100 ppm ^w /ISOBUTYLENE.
CA290 / ^{QA} SPLIT, ^{MS} /MSD, Field Dup (CA293) 1105 ^{no}
CA311 / ^{QA} SPLIT.
Rinseate #3
Health and Safety Levels and Activities: Level "D"
Problems Encountered/Corrective Actions Taken: DATA Sonde 3 (3.1)
Redox PROBE WAS NOT FUNCTIONING PROPERLY, AND WAS
REPLACED WITH A SEPARATE Redox PROBE (ORION SA250).
Redox PARAMETERS WERE COLLECTED OUTSIDE THE WELL DO
TO HEAVY FLUCTUATION OF THE DIGITAL DISPLAY.
Downtime/Standby:
Special Notes: Roots were encountered in the SCREEN AREA OF
CA310

By Ryan R. Herald Title ENVIRONMENTAL SCIENTIST
Beth A. Hely

Date 12/12/86**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
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Weather

Temp

Wind

Humidity

Bright Sun	Clear	Overcast	Rain	Snow
Below 0	0-20	20-40	40-60	60-up
Still	Moderate	High	Report No. #4	
Dry	Moderate	Humid		

W-C PM: Dave ConvyUSAEC PO: Heather BlackProject: CHAAPProject No.: K9642

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski

Visitors Present: EPA representative: Leslie Scally from Jacobs
Engineering in Overland Park, ksSubcontractor Personnel: none

Work Performed/Sampling Activities:

water sampling of the following
well locations:CA 322CA 313CA 332CA 342CA 343NW 121NW 122

Quality Control Activities (including field calibrations):

See next page

<u>Cont:</u>
Calibrated data sonde III (3.1 & 3.3)
PID mine ray were calibrated using 100ppm
isobutylene
Health and Safety Levels and Activities:
Level D
Problems Encountered/Corrective Actions Taken:
Data Sonde 3.1 not working off and on
Downtime/Standby: ~ 1 hour + not able to use
2 pump system at NW 120 cluster
Special Notes:

By Burt A Hedy Title Site task leader

Date 12/13/86

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No. 45	
Humidity	Dry	Moderate	Humid		

W-C PM: Dave Convy
USAEC PO: Heather Black
Project: CHAAP
Project No.: K9642

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski

Visitors Present: EPA representative Leslie Scally from
Jacobs Engineering

Subcontractor Personnel: none

Work Performed/Sampling Activities: water sampling from the following
locations:

NW 101 CA 253

NW 100 NW 120

NW 102

NW 070

NW 071

NW 030

NW 031

NW 032

Quality Control Activities (including field calibrations): next page

calibrated data sonde III (units 3.1 and 3.3)
the PID mini Ray was calibrated using 100 ppm
i-isobutylene

Level D

ноне

Special Notes:

By Burt A. Hely Title Site Task Coordinator

Date 12/15/96**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
X						

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40 X	40-60	60-up
Wind	Still X	Moderate	High	Report No.	
Humidity	Dry	Moderate X	Humid	#6	

W-C Personnel: ~~Bret Hedenkamp, John Mattauer~~, Ryan Herold, Jacquelyn BolinskiVisitors Present: NONESubcontractor Personnel: NONE

Work Performed/Sampling Activities: Resumed collecting explosive
Samples at mw, GA0024, and CA 250, 251, 252.

Quality Control Activities (including field calibrations):

HNU were CALIBRATED w 100/PPM ISOBUTYLENE PROBES were CALIBRATED once in the morning And once in the Evening	
Health and Safety Levels and Activities:	Level "D"
Problems Encountered/Corrective Actions Taken:	NONE
Downtime/Standby:	NONE
Special Notes:	

By Ryan P. Heald Title STAFF Scientist

Date 12/16/96**W-C DAILY QUALITY
CONTROL REPORT**Day

S	M	T	W	TH	F	S
	X					

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No. #7	
Humidity	Dry	Moderate	Humid		
		X			

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn BolinskiVisitors Present: NONESubcontractor Personnel: NONE

Work Performed/Sampling Activities: Began loading and
unloading supplies, mobilized BACK to the
OFFICE in "OMAHA"

Quality Control Activities (including field calibrations):

Health and Safety Levels and Activities: <u>Level "D"</u>
Problems Encountered/Corrective Actions Taken: <u>None</u>
Downtime/Standby: <u>None</u>
Special Notes:

By Ryan R. Herold Title STAFF Scientist

Date 2/17/46 97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No. #1 or 8	
Humidity	Dry	Moderate	Humid		

W-C PM: DAVE CONNY
 Contact: HEATHER BLACK
 Project: CHAAP
 Project No.: K9702-RESAMPLING

W-C Personnel <u>MIKE SONDERMAN, JACQUELYN BOLINSKI, BEN WILLIAMS,</u>	
<u>DEET HEDENKAMP</u>	
Visitors Present: <u>NONE</u>	
Subcontractor Personnel: <u>NONE</u>	
Work Performed/Sampling Activities: <u>GROUNDWATER SAMPLING FROM THE</u>	
<u>FOLLOWING WELLS:</u>	
<u>NW030</u>	
<u>NW031</u>	
<u>NW032</u>	
FIELD SAMPLE IDs:	
<u>SAMPLES COLLECTED: NW030</u>	
<u>NW031</u>	
<u>NW032</u>	
QC SAMPLES	<u>NW032MS + MSD</u>
	<u>NW033 - FIELD DUPLICATE TO NW032</u>
Quality Control Activities (including field calibrations):	
<u>CALIBRATION VERIFICATION OF DATA SONDE 3 (3.1 + 3.3) WITH</u>	
<u>MANUFACTURER'S STANDARDS AND USEC STANDARDS. PID MINI-RAY</u>	

Report No. #1 of 8
Date 2-17-77

CALIBRATED USING 100PPM ISOBUTYLENE

Health and Safety Levels and Activities:

LEVEL D

Problems Encountered/Corrective Actions Taken:

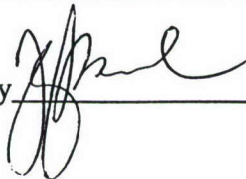
NONE

Downtime/Standby:

NONE

Special Notes: OFF-PIST GROUNDWATER SAMPLING - LTM PROGRAM @ CHAAP

By



Title ENVIRONMENTAL SPECIALIST

Date 2/18/97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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Weather

Bright Sun	Clear	Overcast	Rain	Snow
Below 0	0-20	20-40	40-60	60-up
Still	Moderate	High	Report No. # 2 ^{OR 91}	
Dry	Moderate	Humid		

Temp

Wind

Humidity

W-C PM: DAVE CONY
Contact: HEATHER BLACK
Project: CAAP
Project No.: K9702 - RESAMPLING

W-C Personnel MIKE SONDERMAN, JACQUELYN EDVINSKI, BOB WILLIAMS
BRET HEDENKAMP

Visitors Present: N/A - NONE

Subcontractor Personnel: N/A - NONE

Work Performed/Sampling Activities: GROUNDWATER SAMPLING FROM THE
FOLLOWING WELLS:

NW070	NN100	NW120	CA272	CA311
NW071	NN101	CA270	CA273	CA312
CA253	NW102	CA271	CA310	

FIELD SAMPLE IDs: SAME AS ABOVE

Quality Control Activities (including field calibrations): CALIBRATION VERIFICATION
OF DATA SONDE 3 (3.1 + 3.3) WITH MANUFACTURERS STANDARDS AND
USACG STANDARDS. PID MINI-FAY CALIBRATED USING 100 PPM

Health and Safety Levels and Activities: LEVEL D

Problems Encountered/Corrective Actions Taken:

DATA SONDE 3.1 NOT RESPONDING DOWN HOLE - RAN BATTERY CHECK. EVERYTHING APPEARED TO BE FUNCTIONING PROPERLY - HOOK-UPS CORRECT ETC. CALLED ENVIRO SERVICES - THEY MADE ^{2/18 3:00} ~~SEVERAL~~ SEVERAL SUGGESTIONS - TRIED AIR - STILL NO RESPONSE. ^{4:30} ~~DAY~~ ^{2/18} TRIED GRT SONDE CABLES WITH TRUCK HEATER - SONDE **Downtime/Standby** ^{4/18} ~~Jan~~ RESPONDING. OFF TO THE NEXT WELL CLUSTER.

NO-DOWNTIME TWO PUMES.

Special Notes: OFF-PIST GROUNDWATER SAMPLING - LTM PROGRAM & CHDAP

By [Signature] Title FIELD MANAGER ENVIRONMENTAL SPECIALIST

Date 2/19/97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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Weather	Bright Sun	Clear <input checked="" type="checkbox"/>	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still <input checked="" type="checkbox"/>	Moderate	High	Report No. #2 ^{up} 10	
Humidity	Dry <input checked="" type="checkbox"/>	Moderate	Humid		

W-C PM: DAVE CONVEY
 Contact: HEATHER BLAKE
 Project: CHAD
 Project No.: K9702 - PESAMPING

W-C Personnel	MIKE SONDERMAN, JACQUELYN BOZINSKI, DEN WILLIAMS BRET HEDENKAMP	
Visitors Present:	N/A - NONE	
Subcontractor Personnel:	N/A - NONE	
Work Performed/Sampling Activities:	GROUND WATER SAMPLING FROM THE FOLLOWING WELLS:	
	CA290	NN130
	CA291	NW131
	CA293	NW132
Field Sample IDs:	SAME AS ABOVE	
QC Samples:	NW132 MS + MSD NW133 FIELD DUPLICATE TO NW132	
Quality Control Activities (including field calibrations):	^{10/11} CALIBRATED ^{ION} VERIFICATION OF DATA SONDE 3(3.1 + 3.3) WITH MANUFACTURERS STANDARDS AND VSACE STANDARDS. ^{SP 2/19} VSACE PID MINI-RAY CALIBRATED USING 100PPM ISOBUTYLENE.	

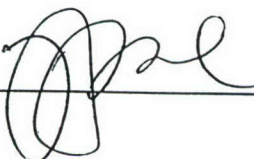
Report No. # 2202/0
Date 2/19/17

Health and Safety Levels and Activities: Level D

Problems Encountered/Corrective Actions Taken: None

Downtime/Standby: None

Special Notes: OFF-POST GROUNDWATER SAMPLING - LTM PROGRAM & CHAAP

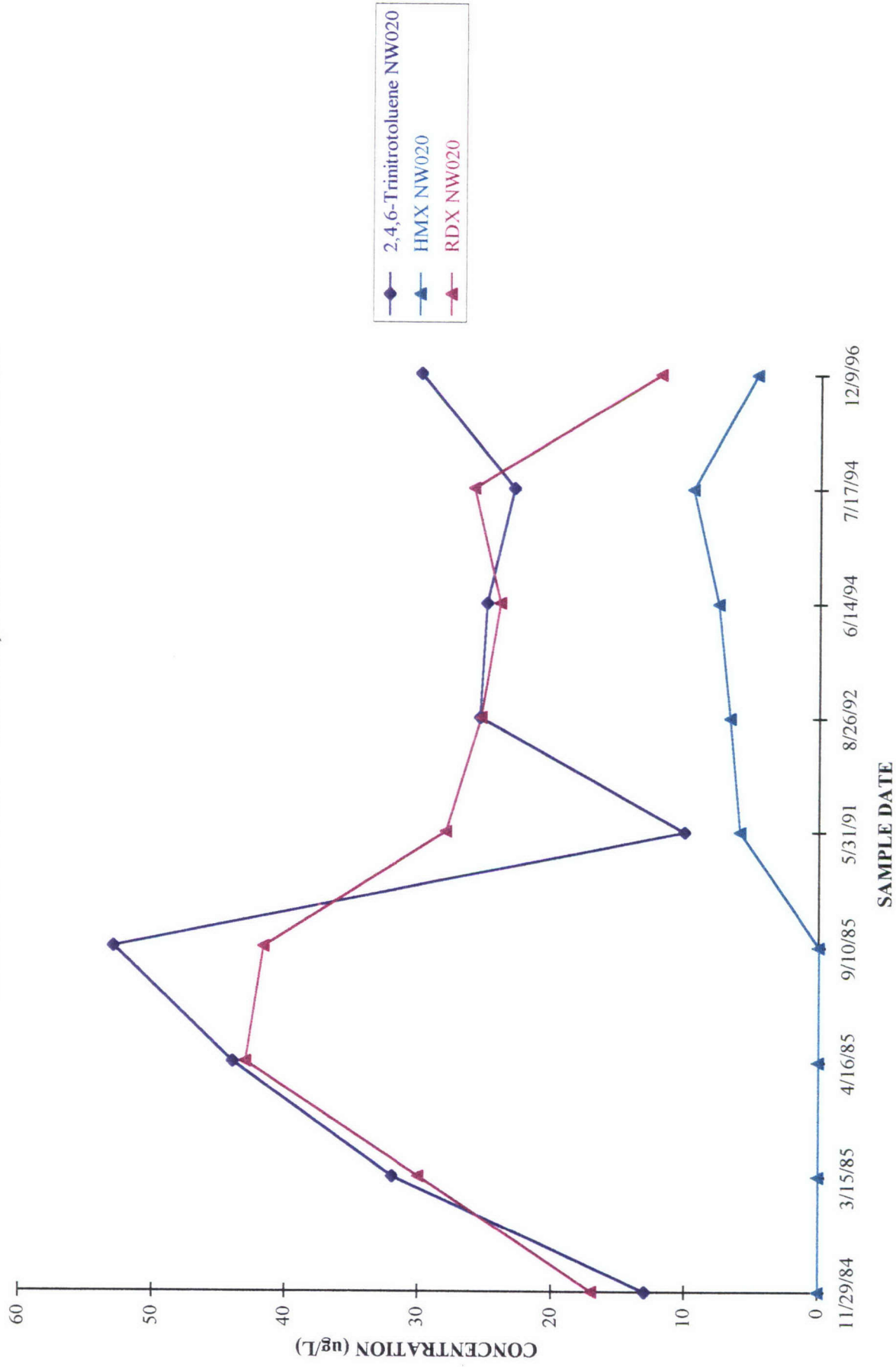
By  Title FIELD MANAGER
ENVIRONMENTAL SPECIALIST

Appendix C

Summary of Present and Historical Analytical Results

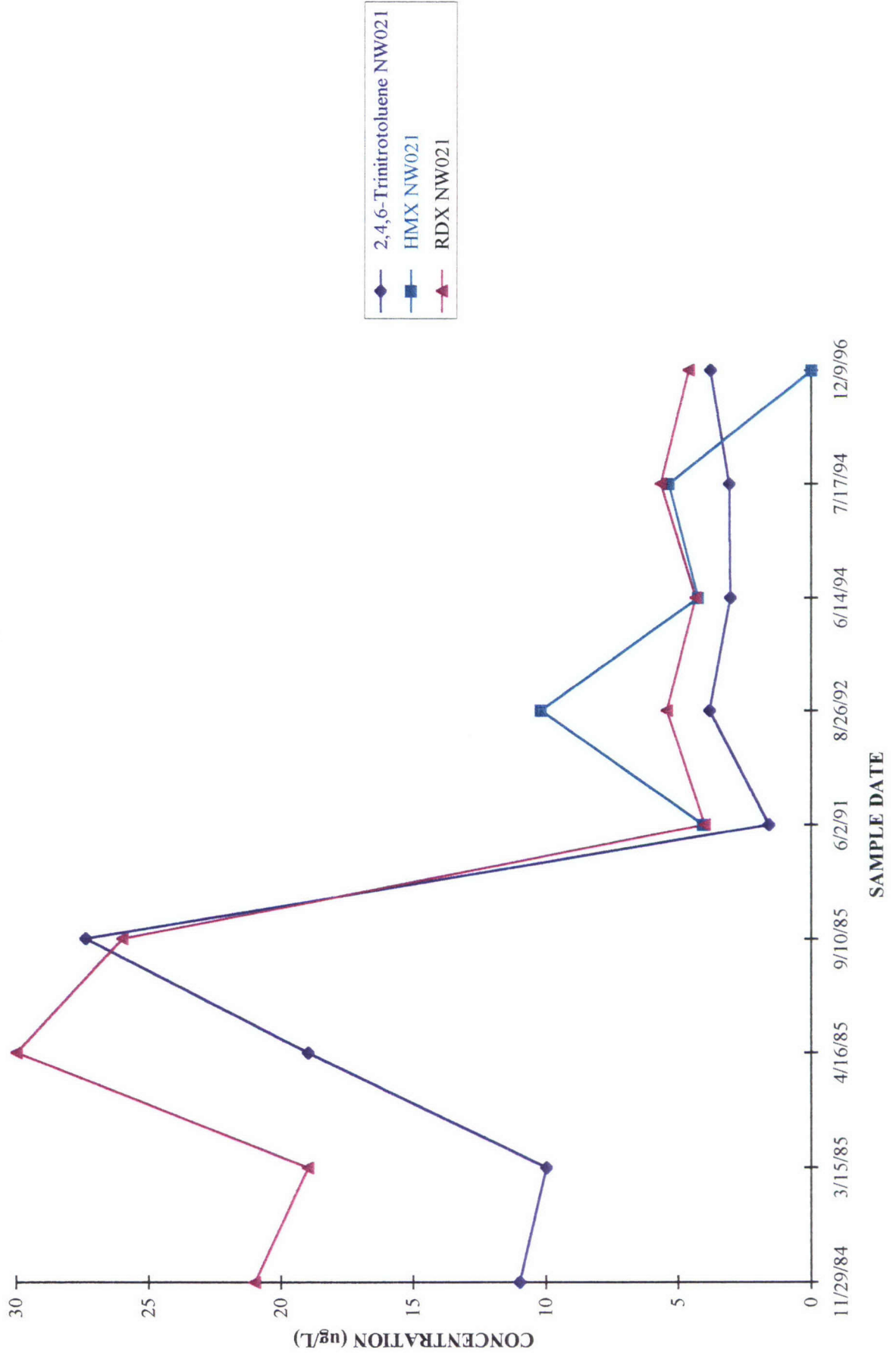
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW020 - HMX, RDX AND TNT

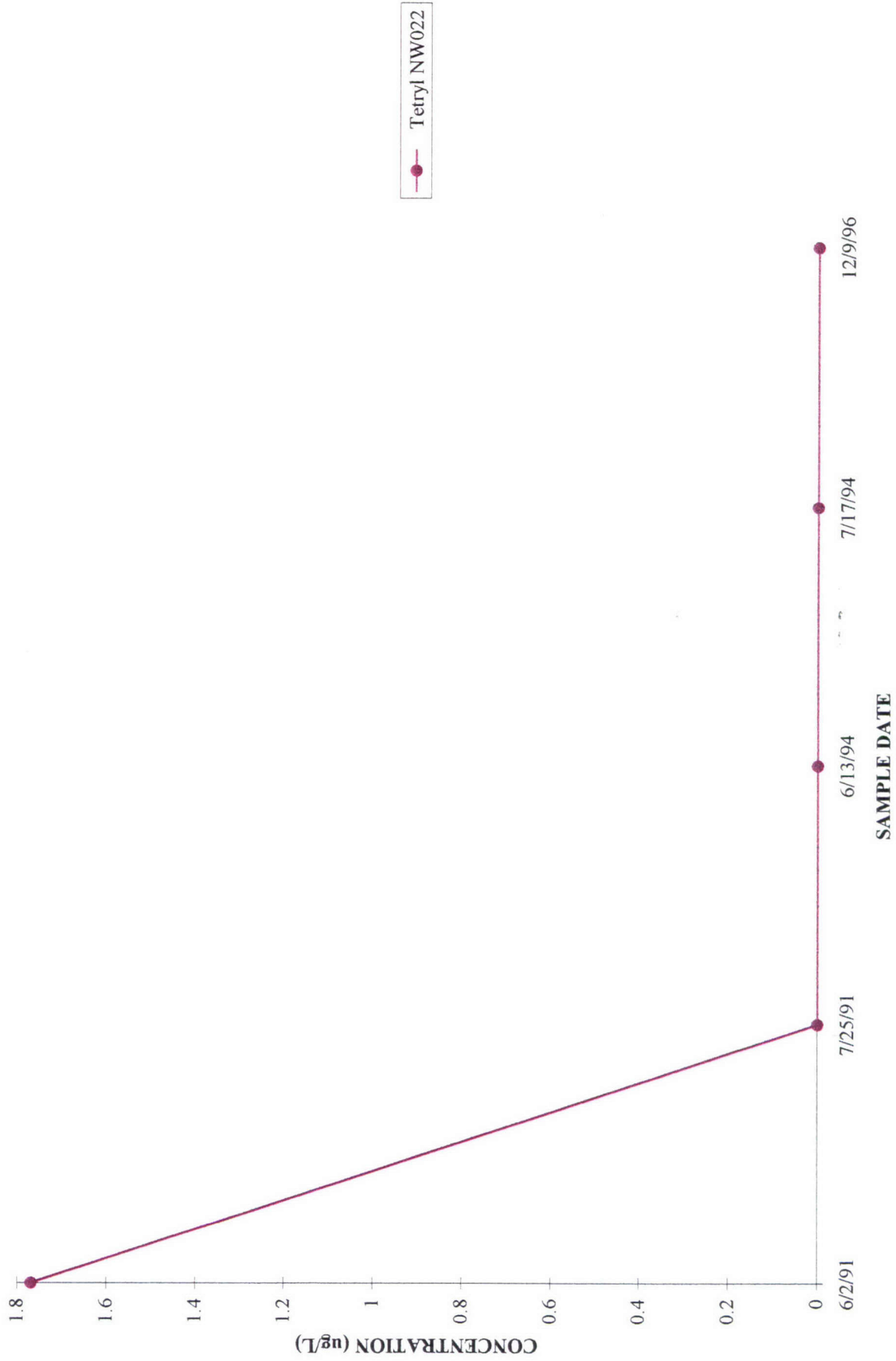


CORNHUSKER ARMY AMMUNITION PLANT

WELL NW021 - HMX, RDX AND TNT

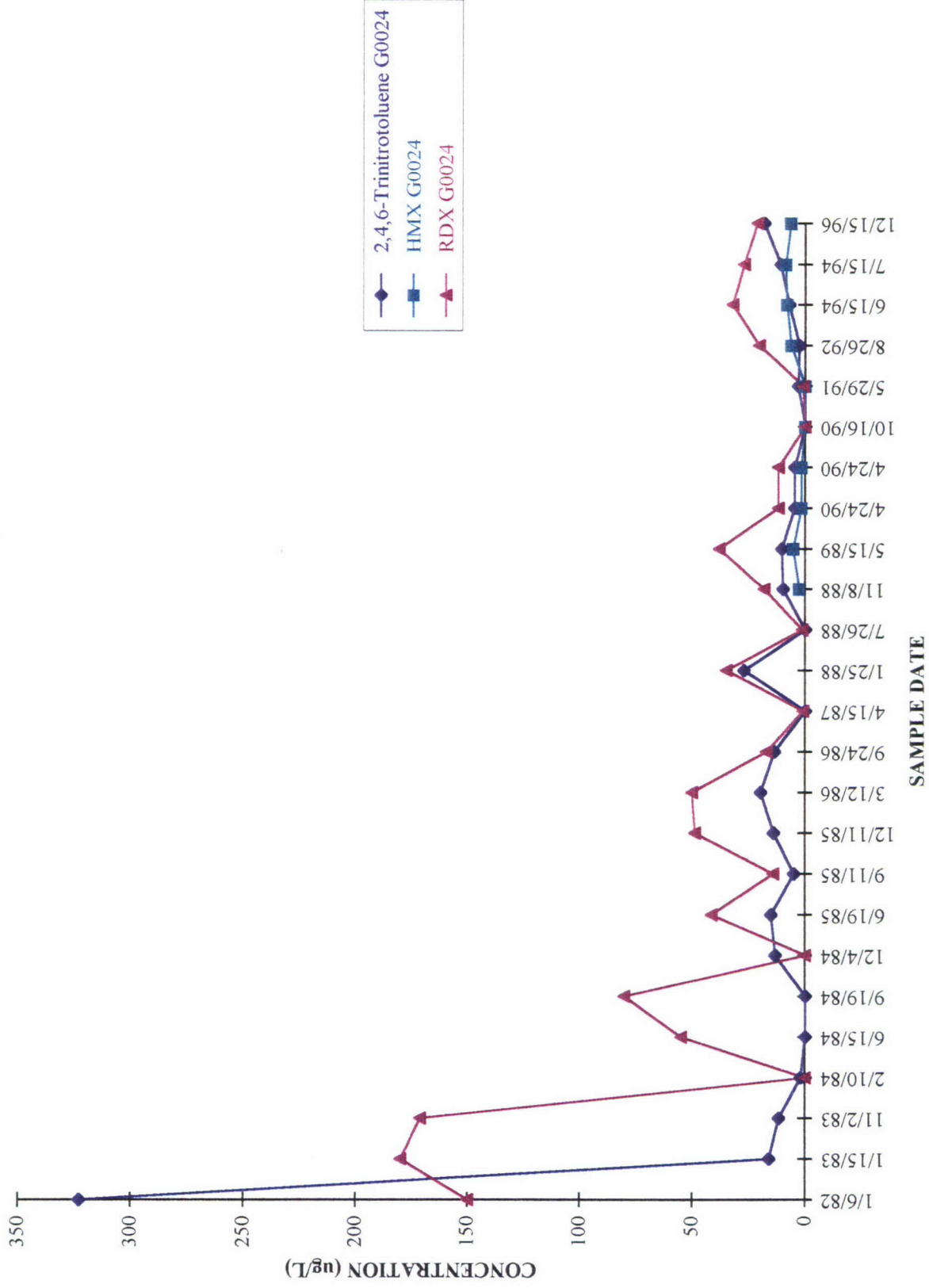


CORNHUSKER ARMY AMMUNITION PLANT WELL NW022 - TETRYL



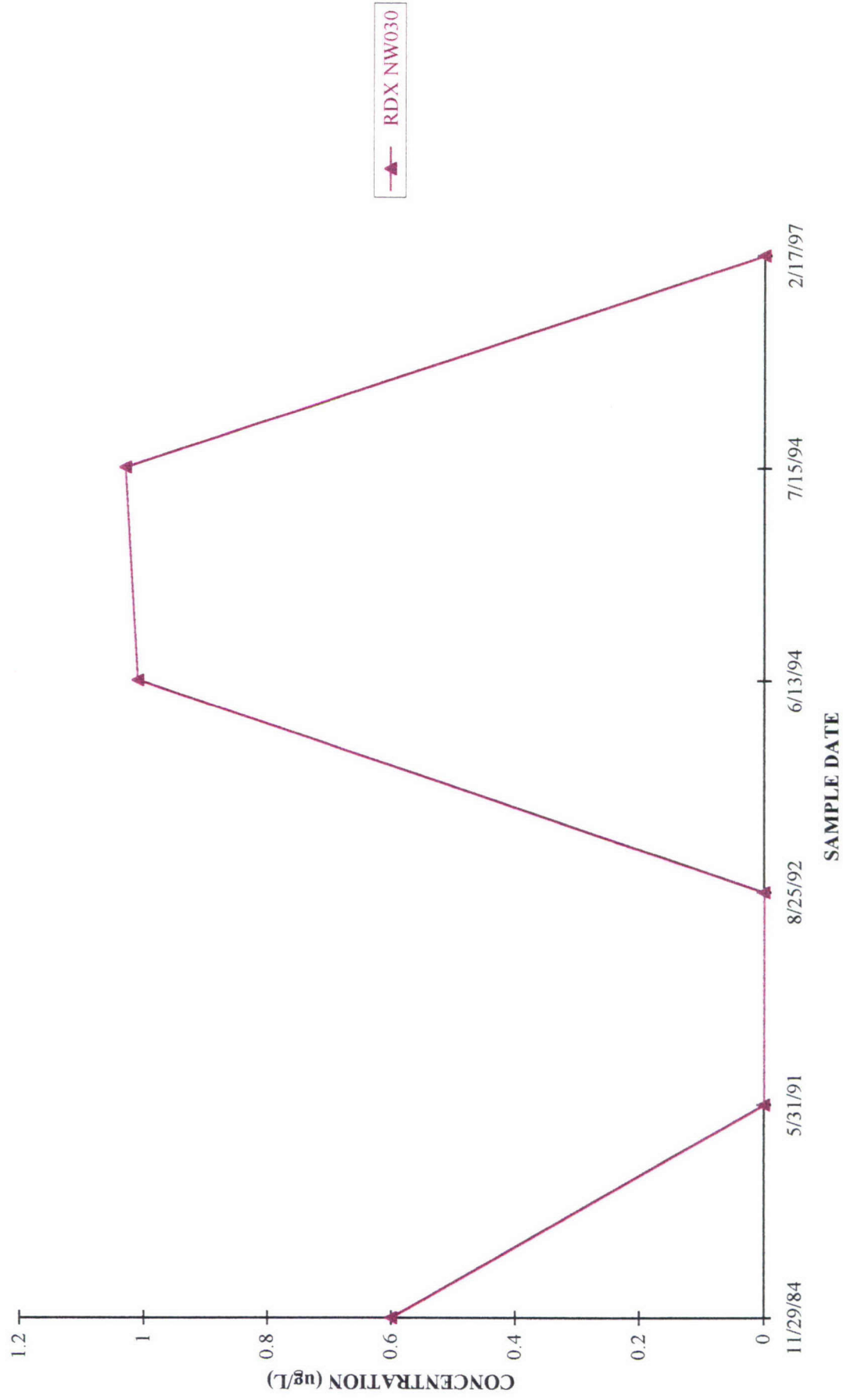
CORNHUSKER ARMY AMMUNITION PLANT

WELL G0024 - HMX, RDX AND TNT



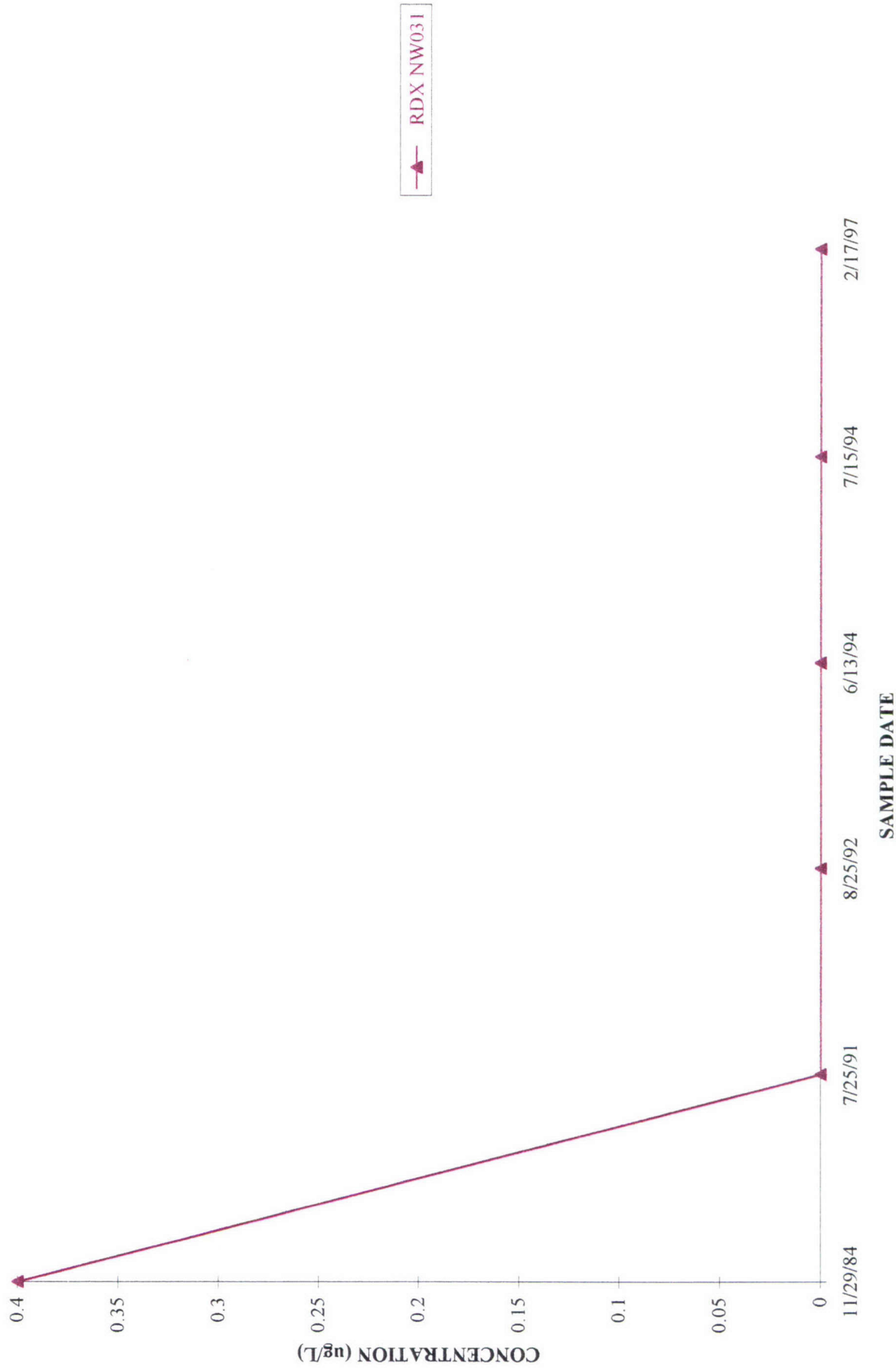
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WELL NW030 - RDX



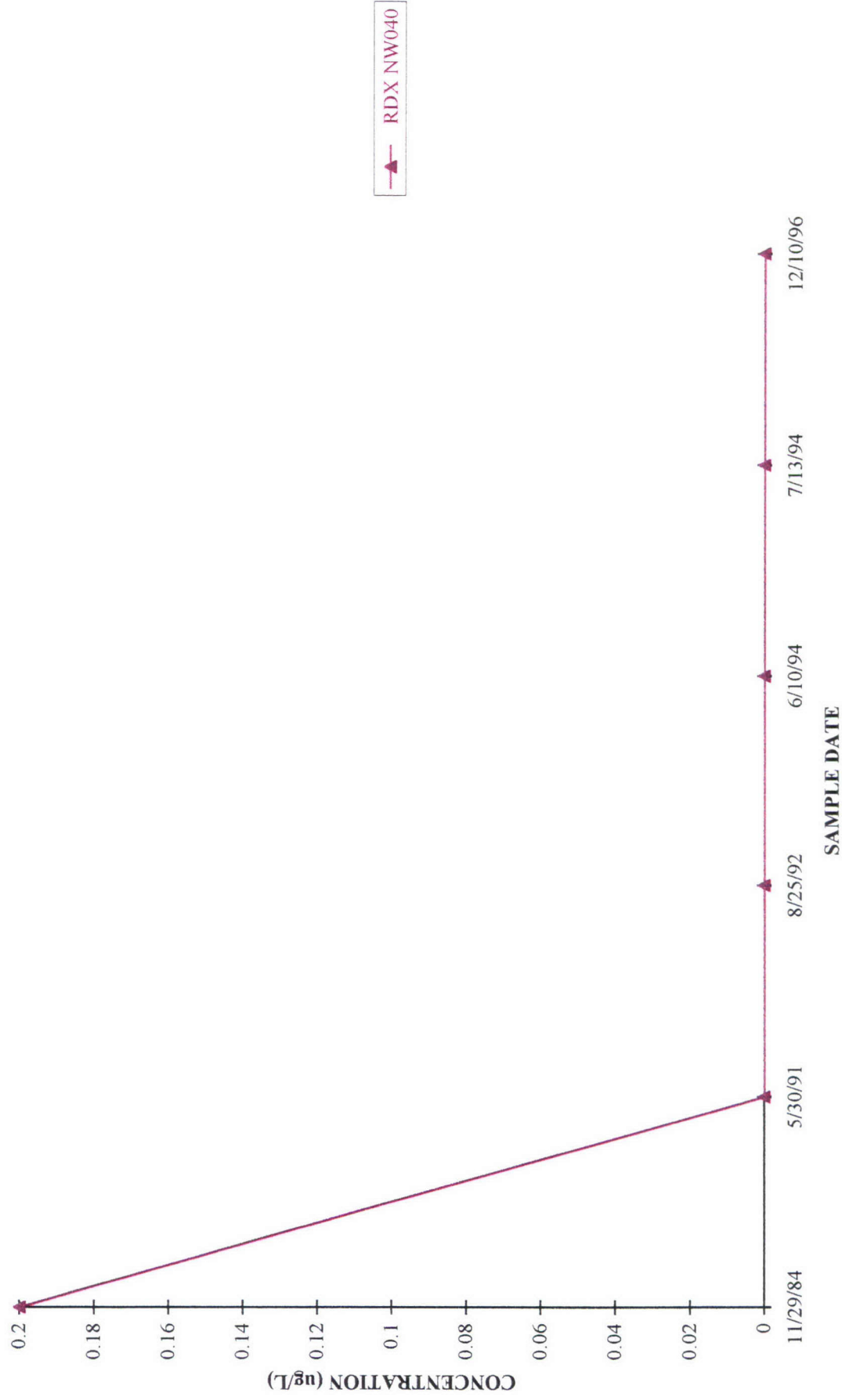
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW031 - RDX



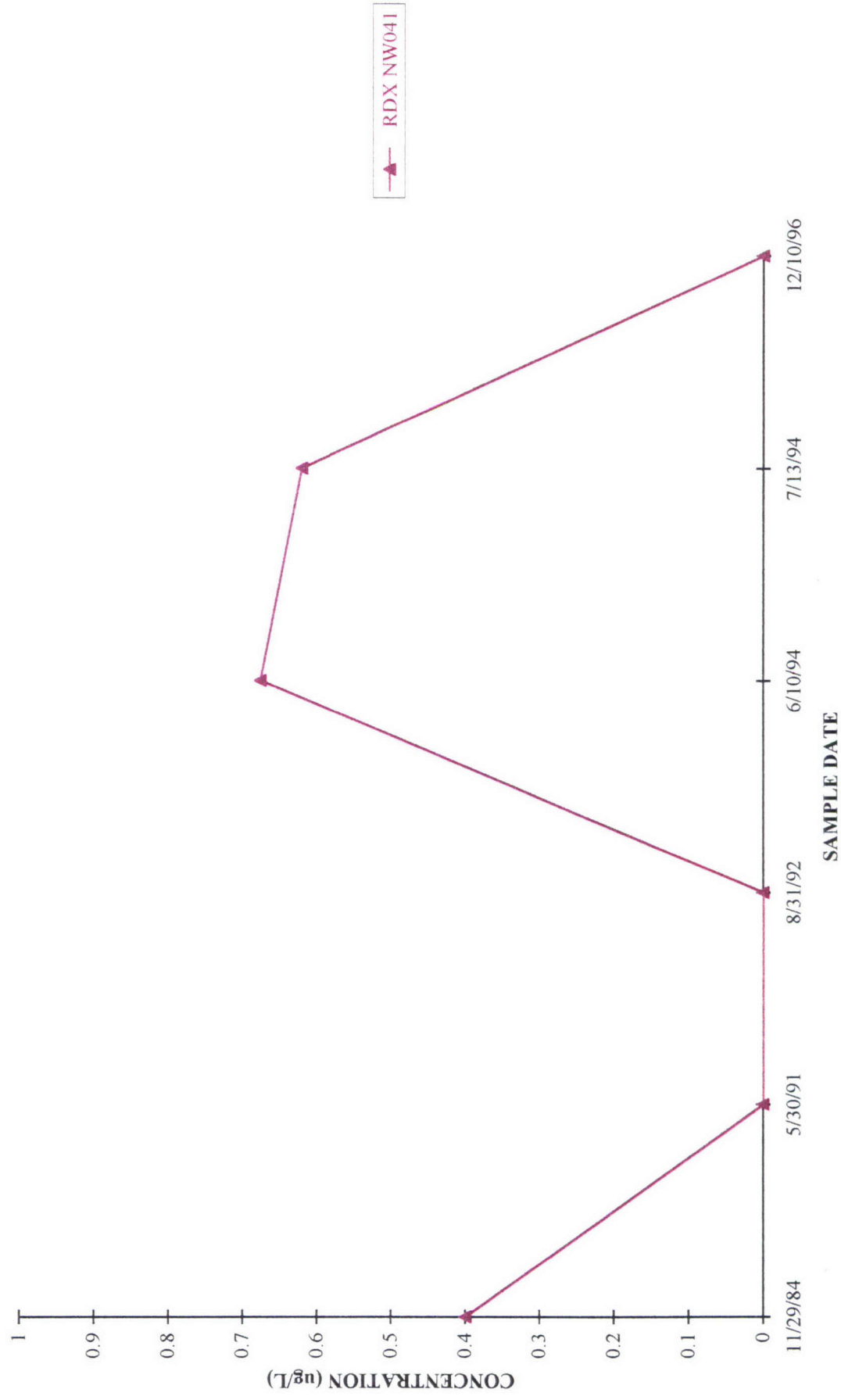
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WELL NW040 - RDX



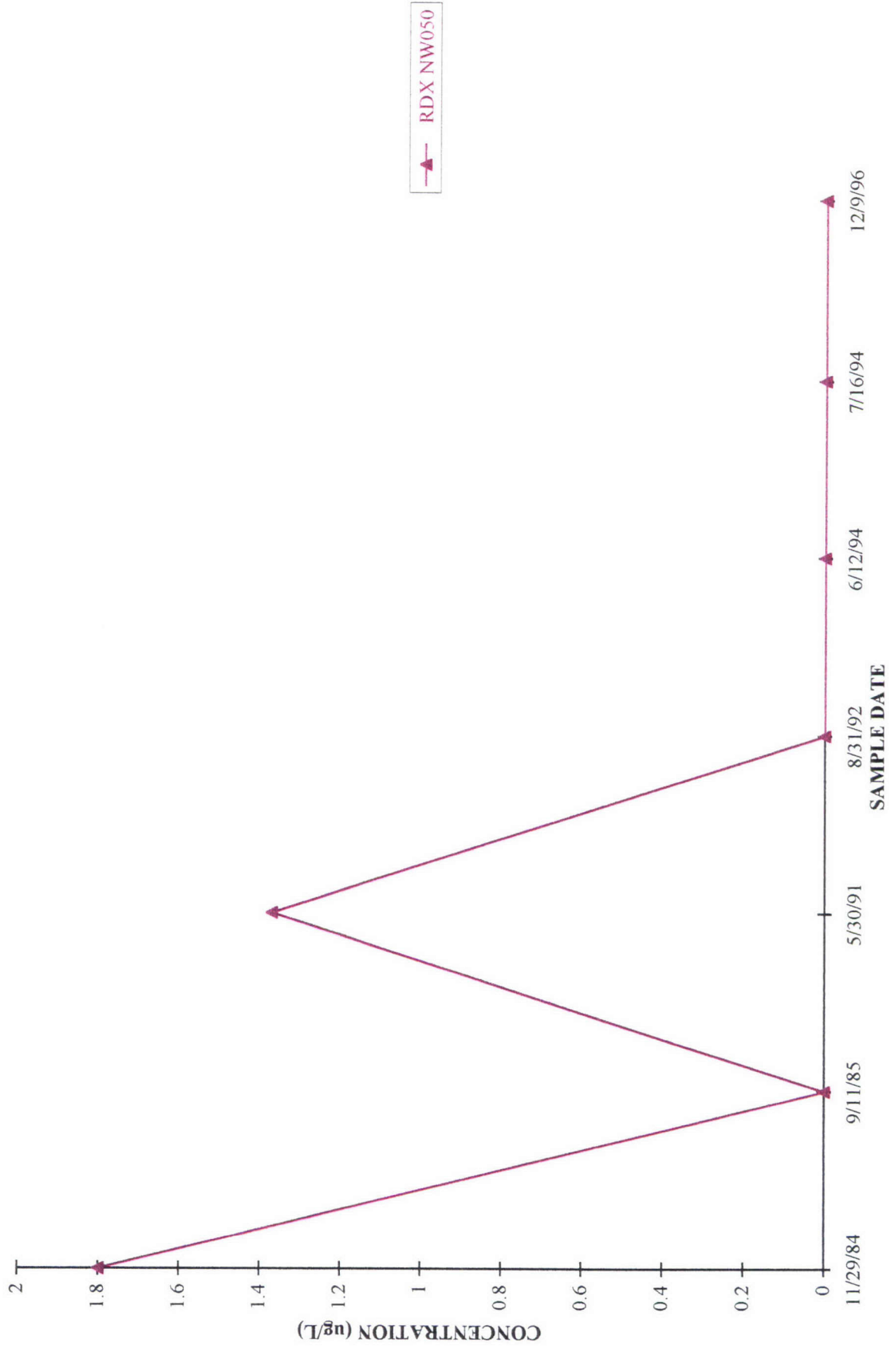
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW041 - RDX



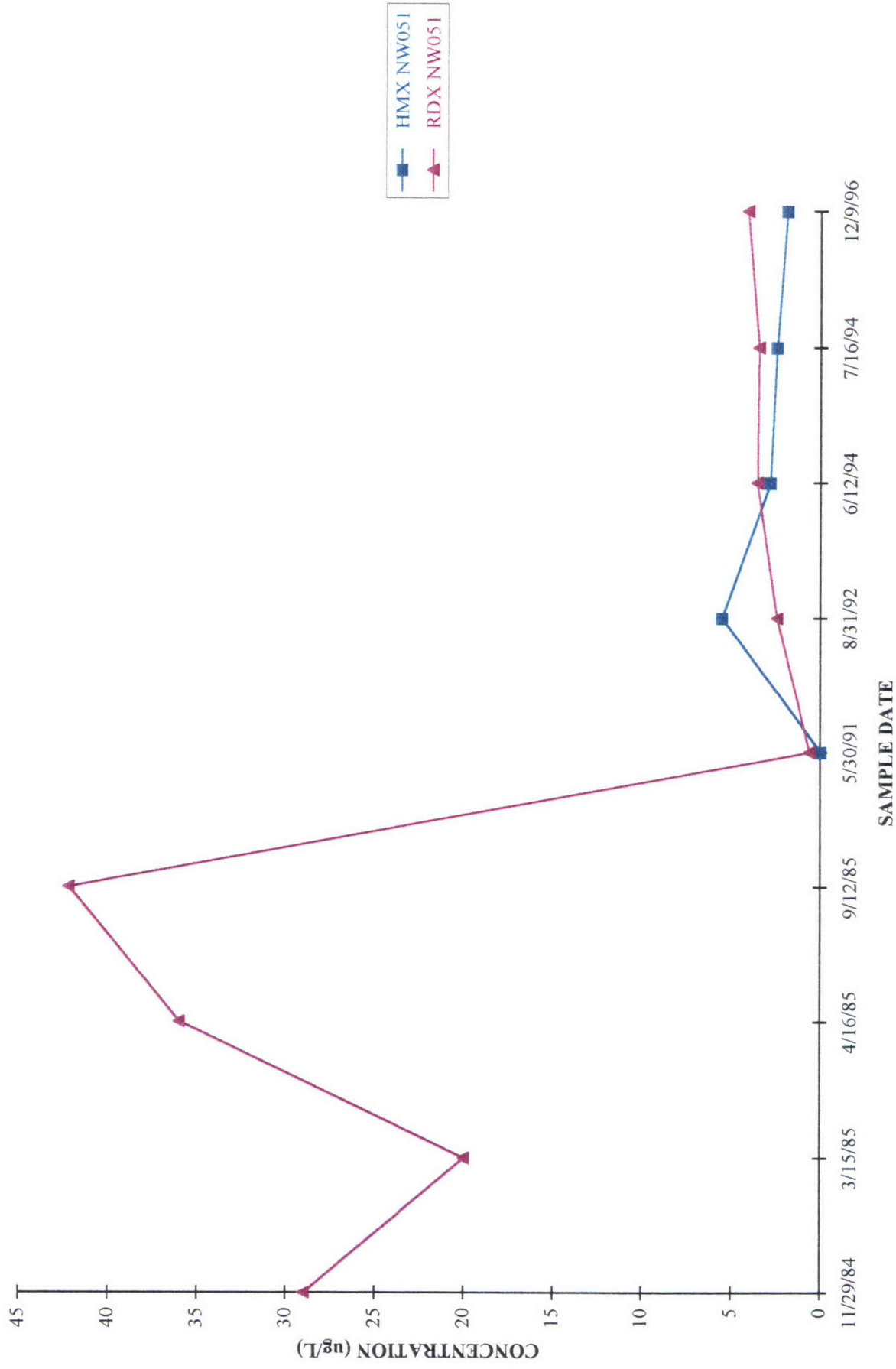
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WELL NW050 - RDX



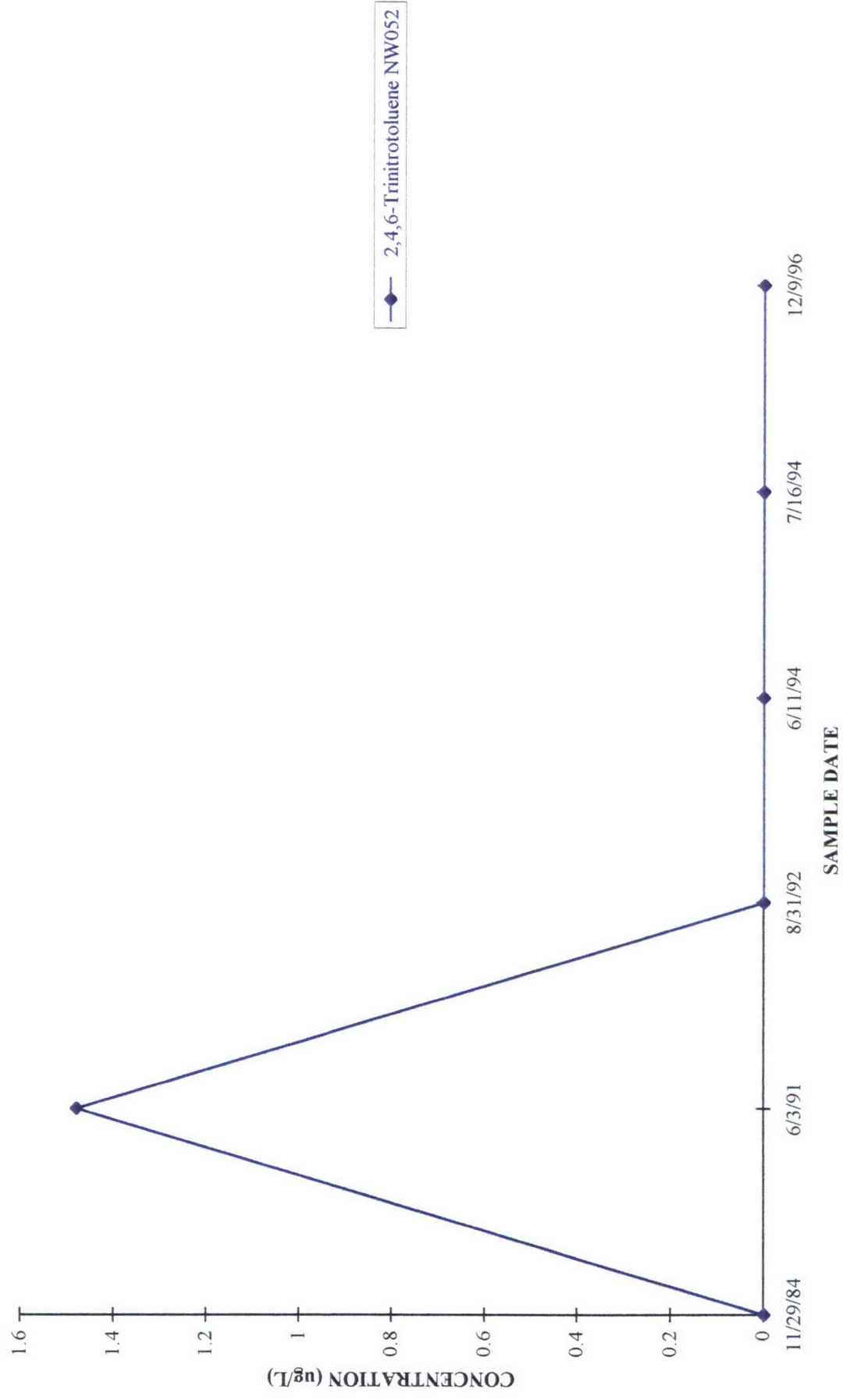
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW051 - HMX AND RDX



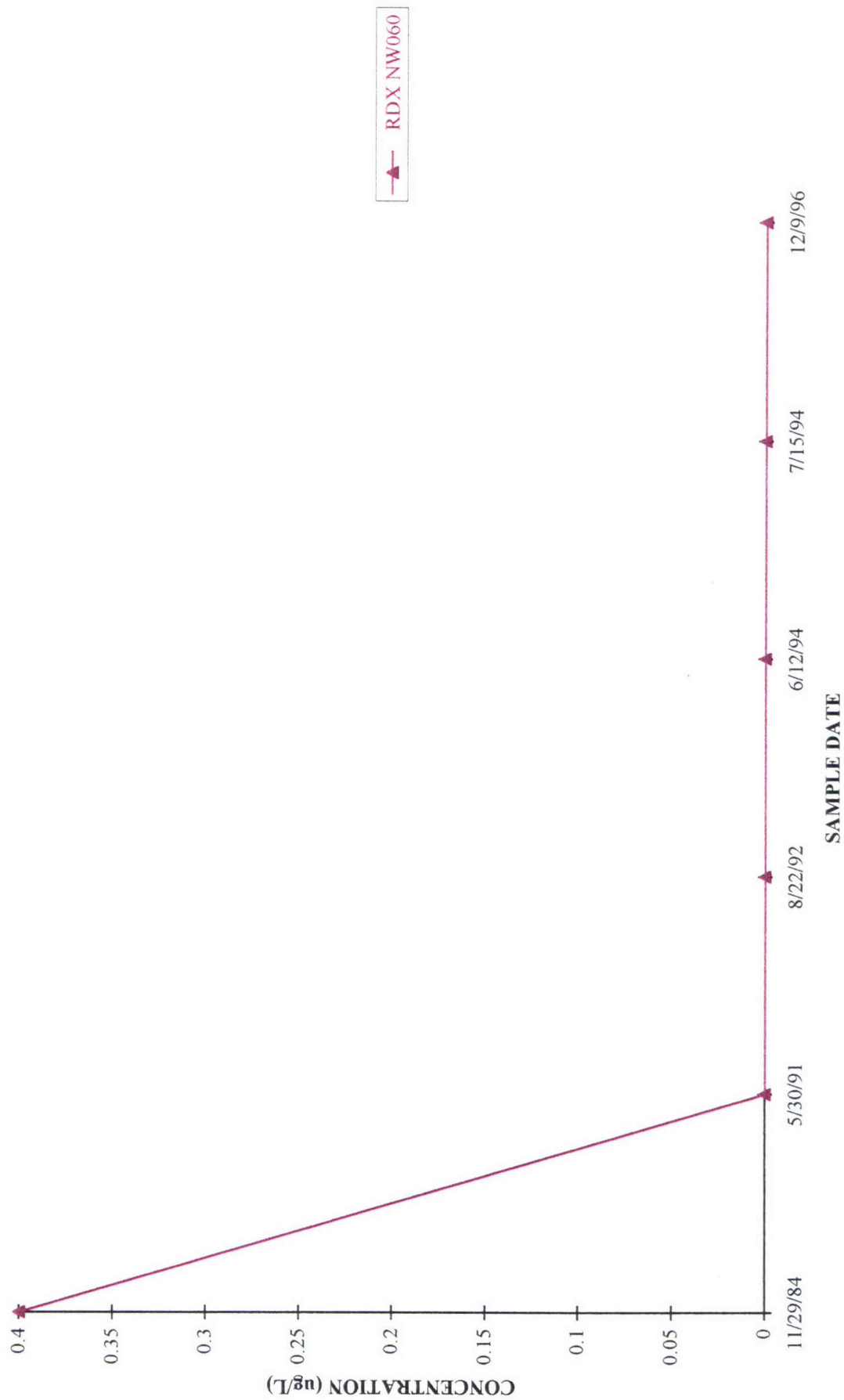
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW052 - TNT

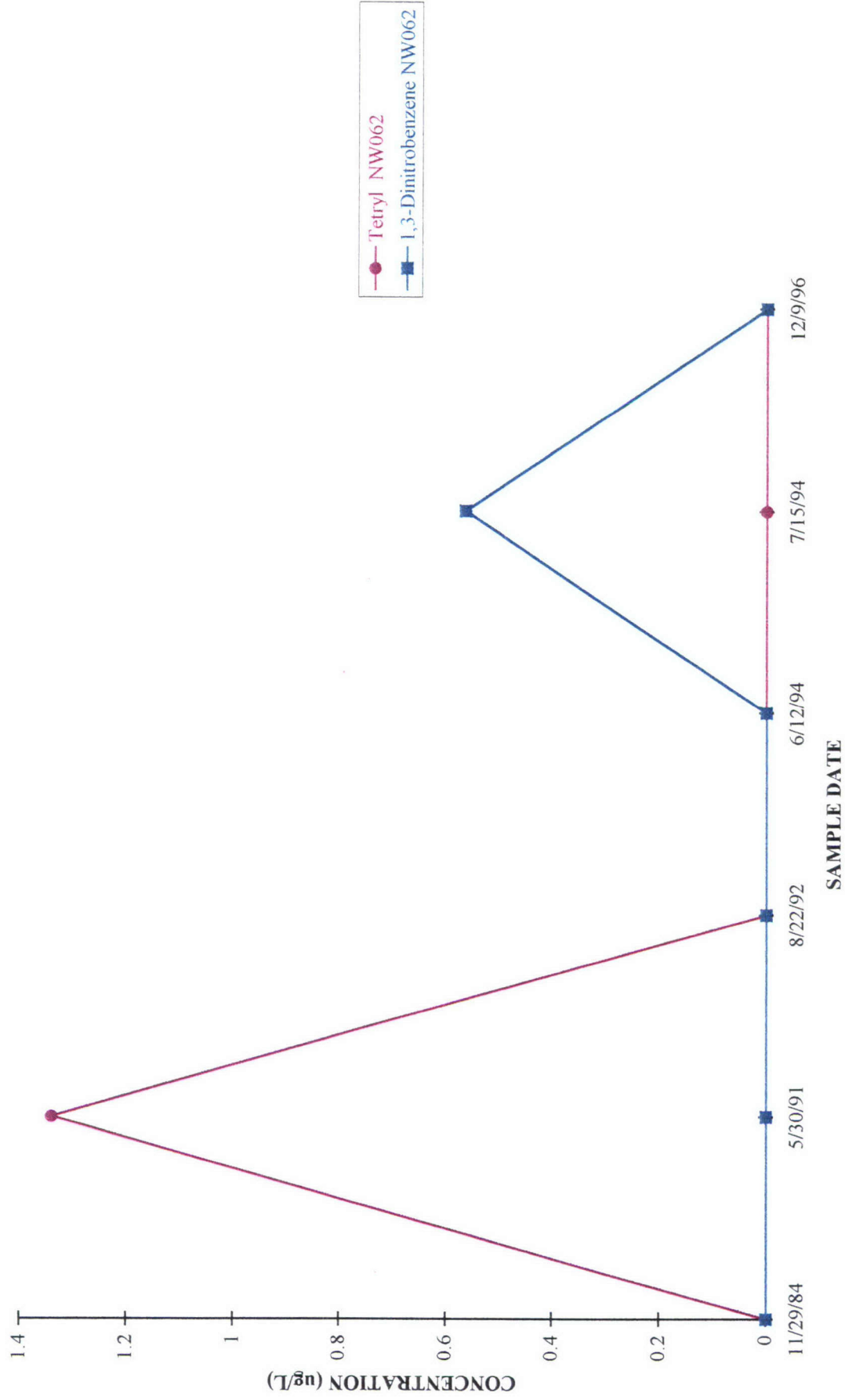


CORNHUSKER ARMY AMMUNITION PLANT

WELL NW060 - RDX

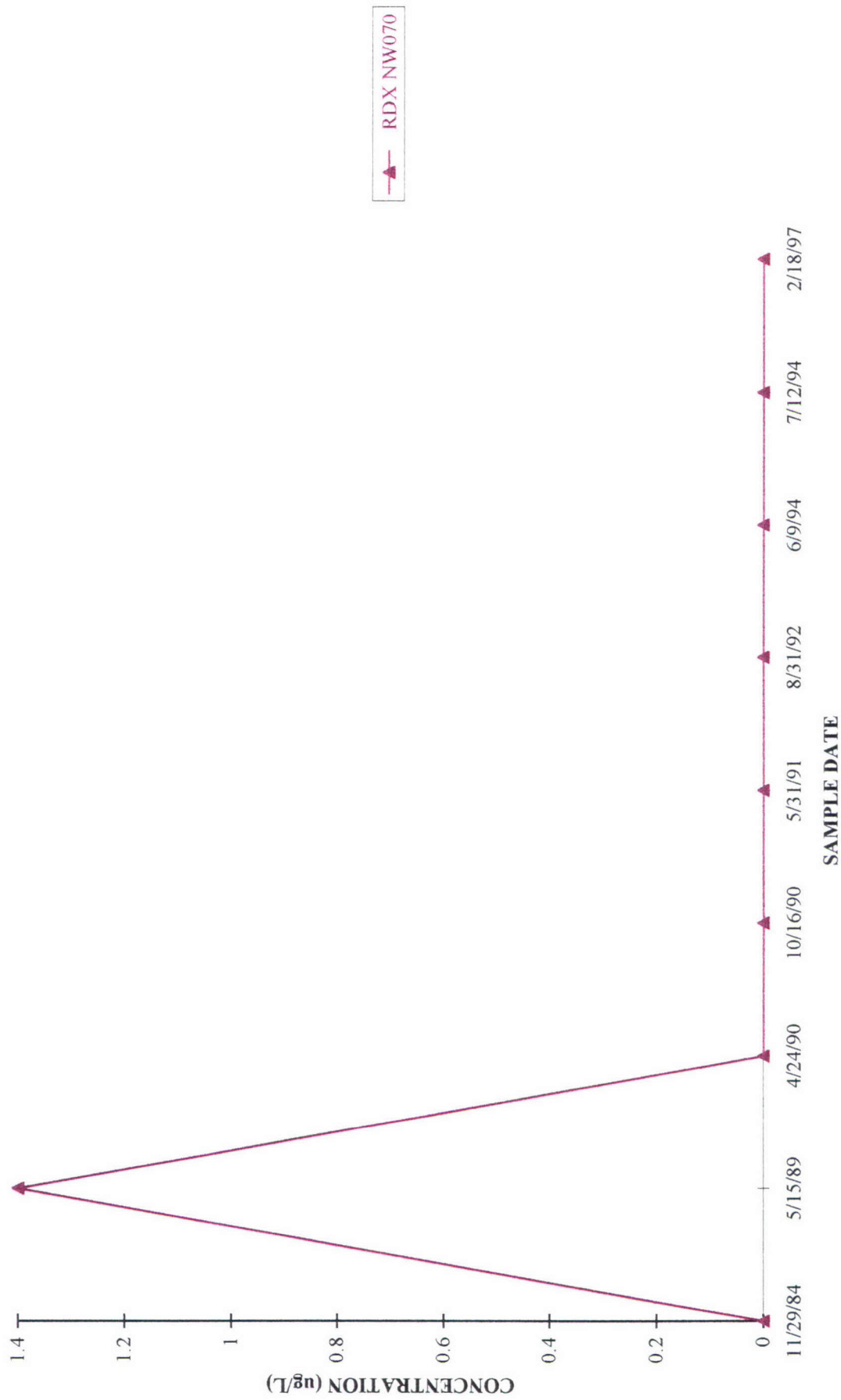


CORNHUSKER ARMY AMMUNITION PLANT WELL NW062 - TETRYL AND DNB



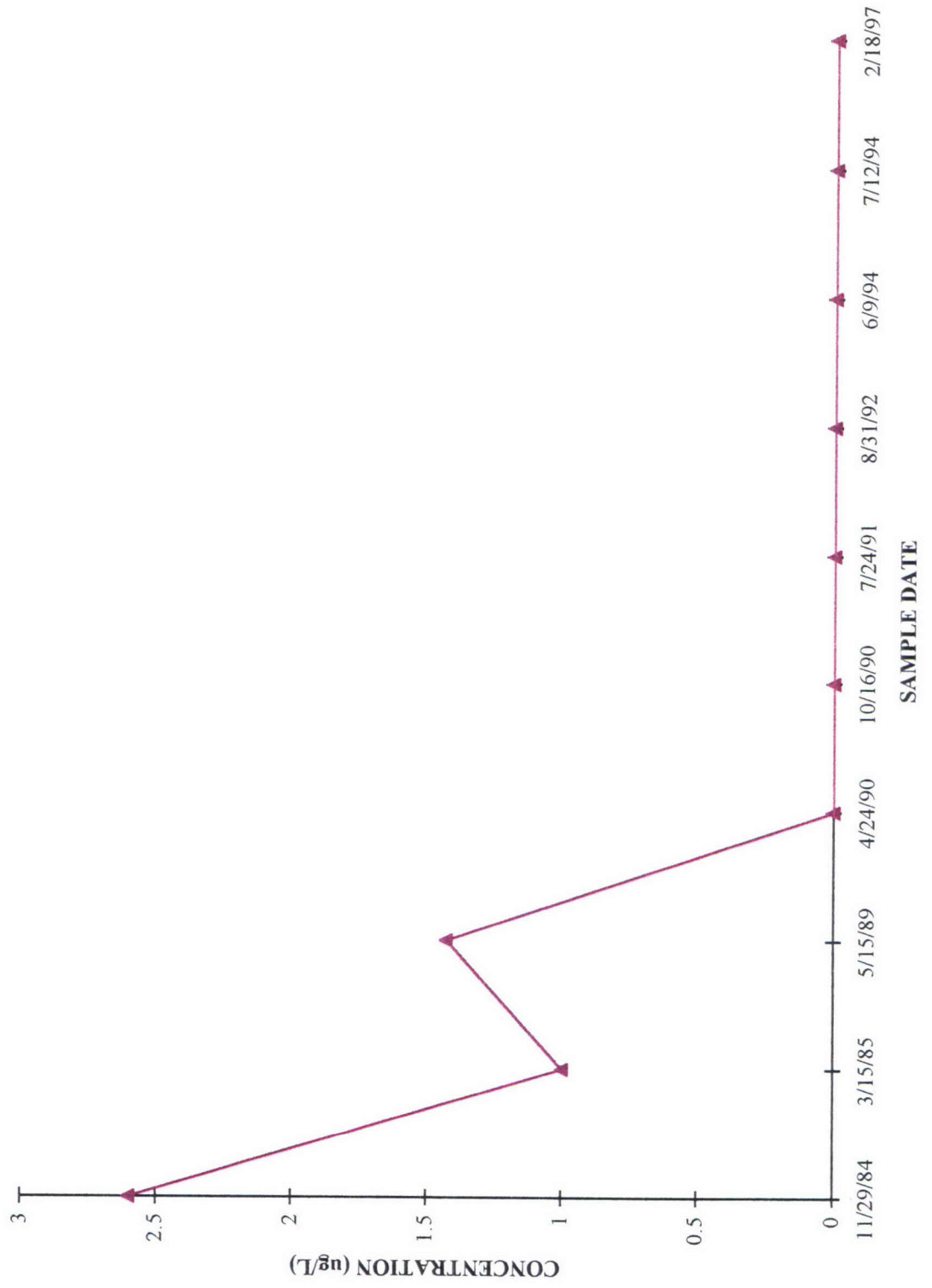
CORNHUSKER ARMY AMMUNITION PLANT

WELL - NW070 RDX



CORNHUSKER ARMY AMMUNITION PLANT

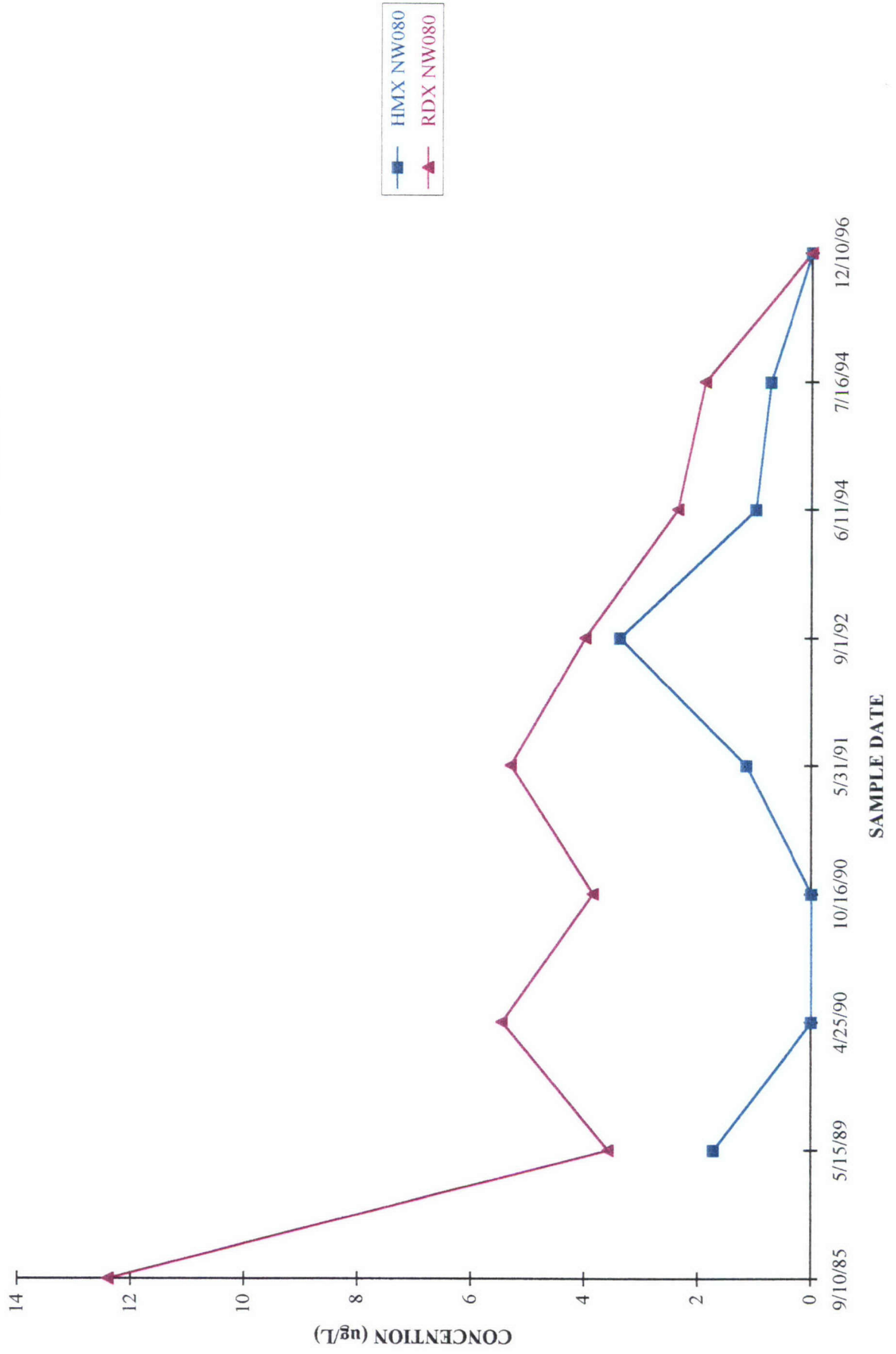
WELL NW071 - RDX



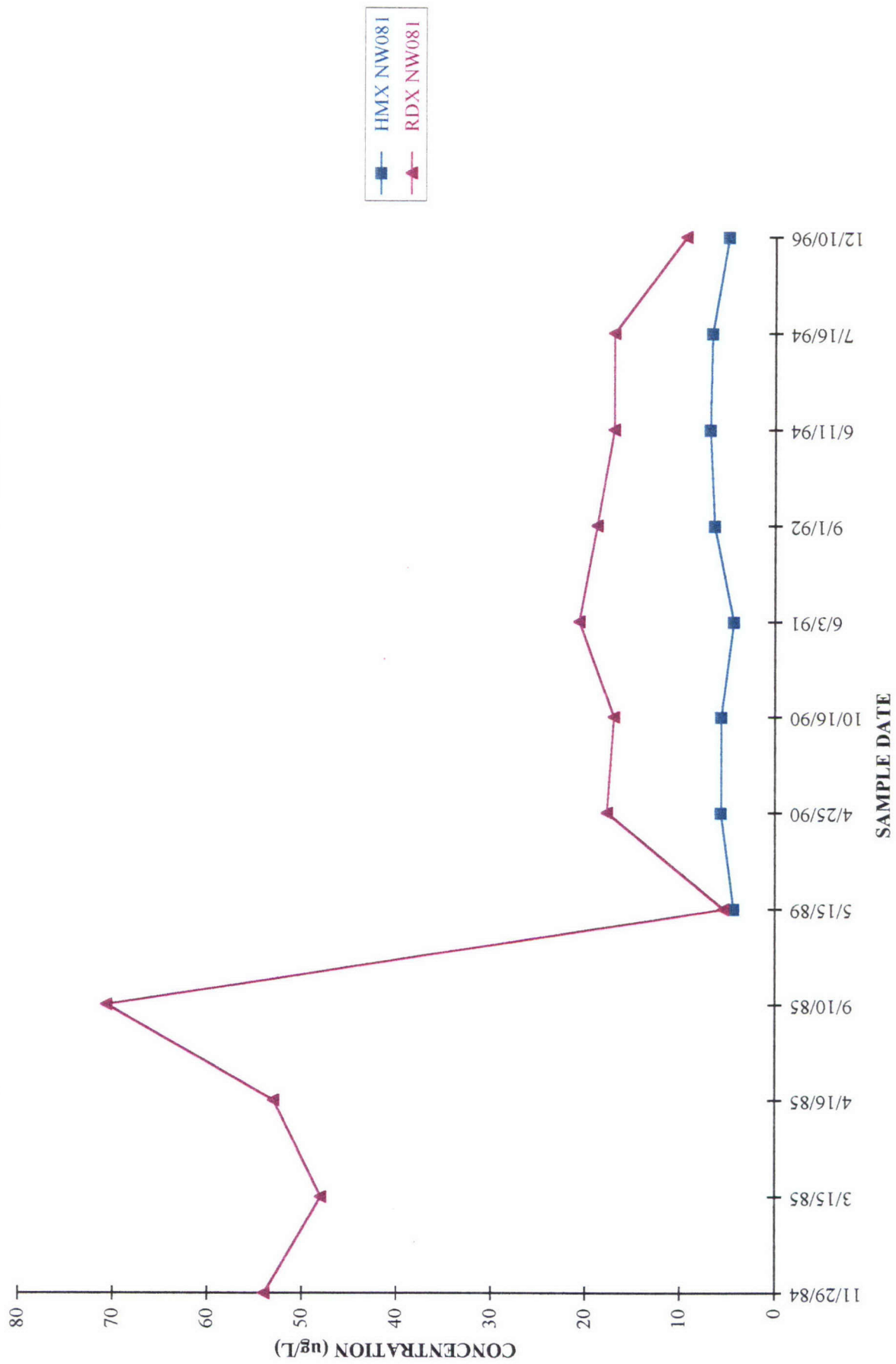
—▲— RDX NW071

CORNHUSKER ARMY AMMUNITION PLANT

WELL NW080 - HMX AND RDX

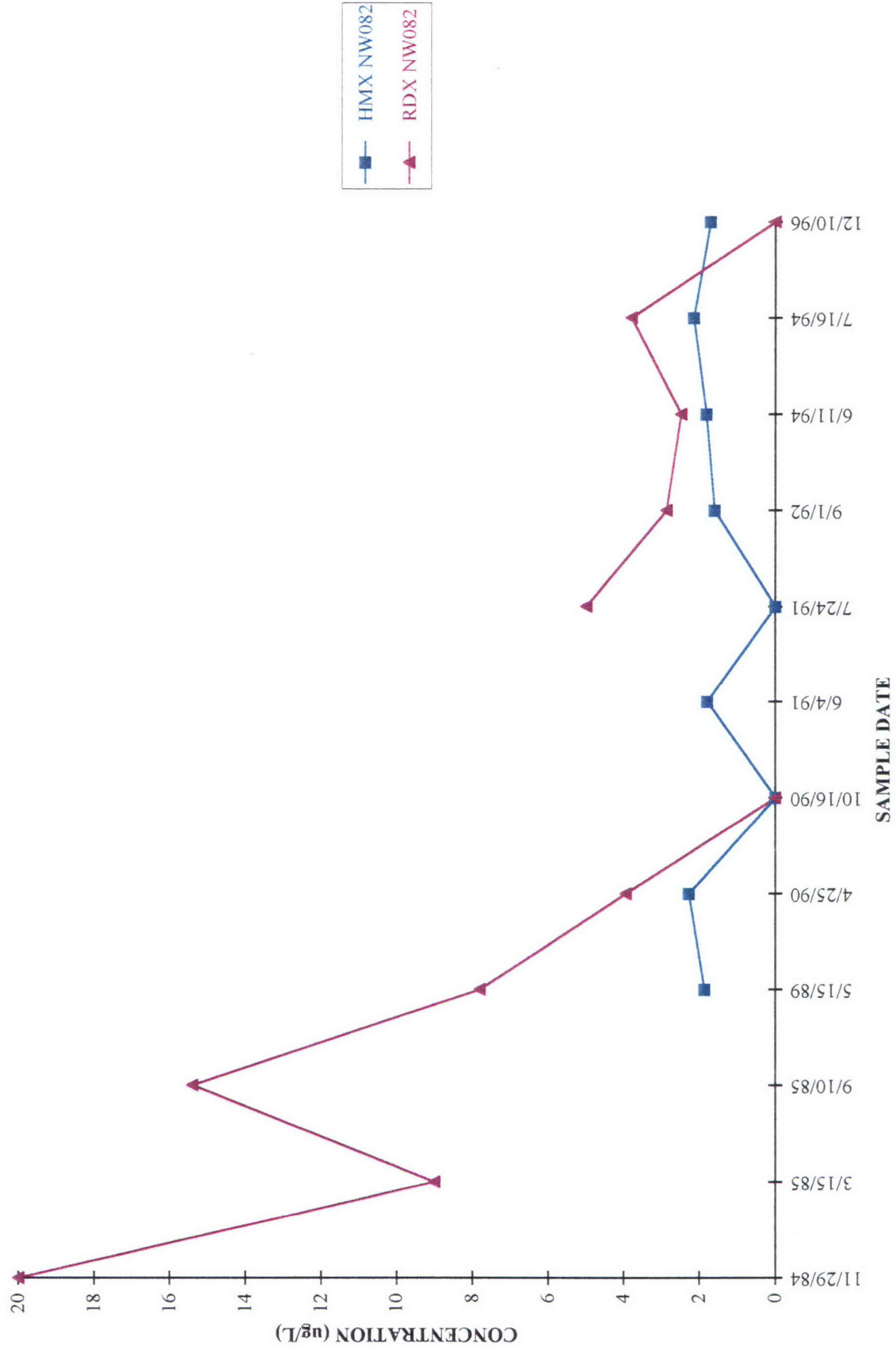


CORNHUSKER ARMY AMMUNITION PLANT WELL NW081 - RDX AND HMX



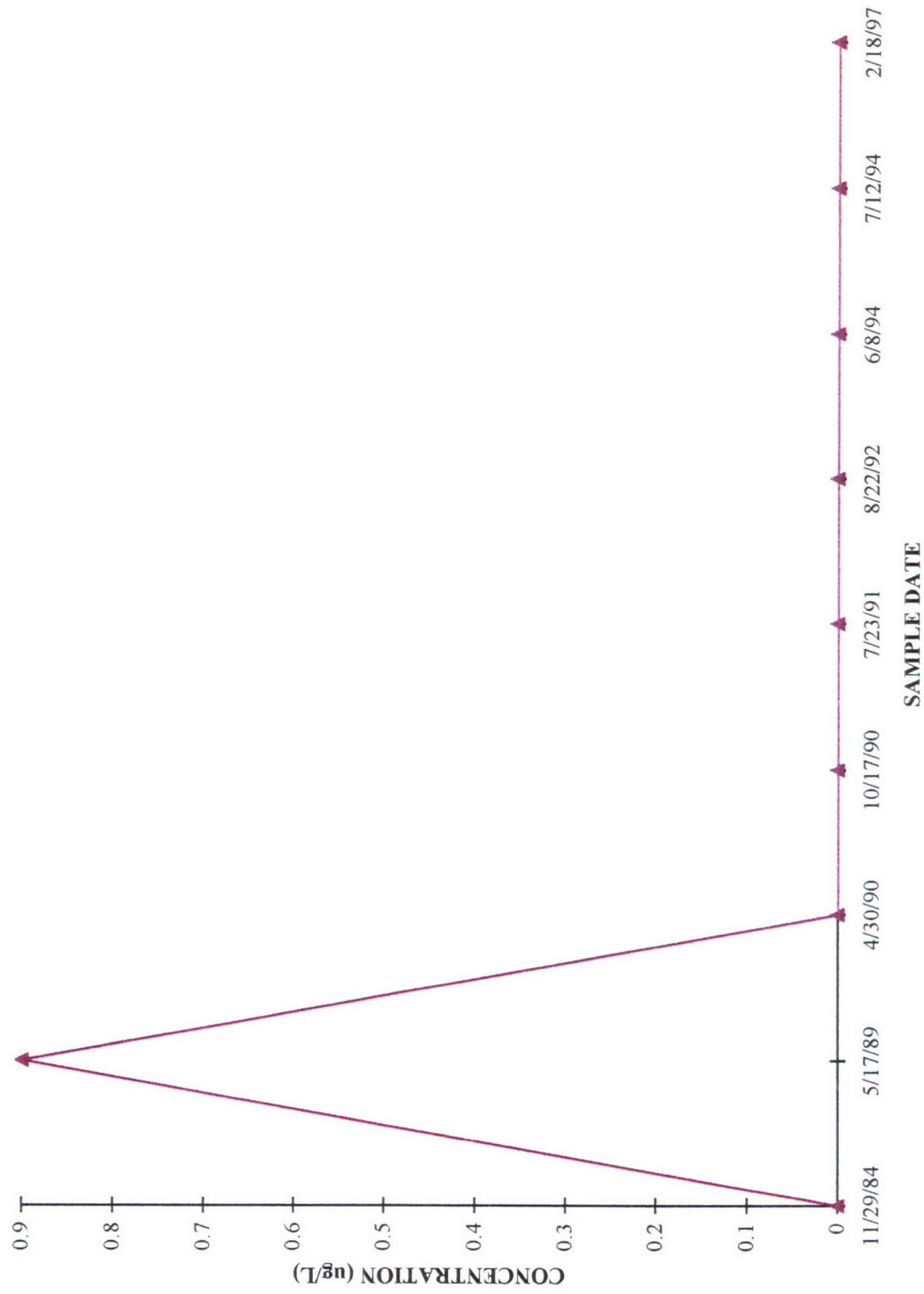
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW082 - HMX AND RDX



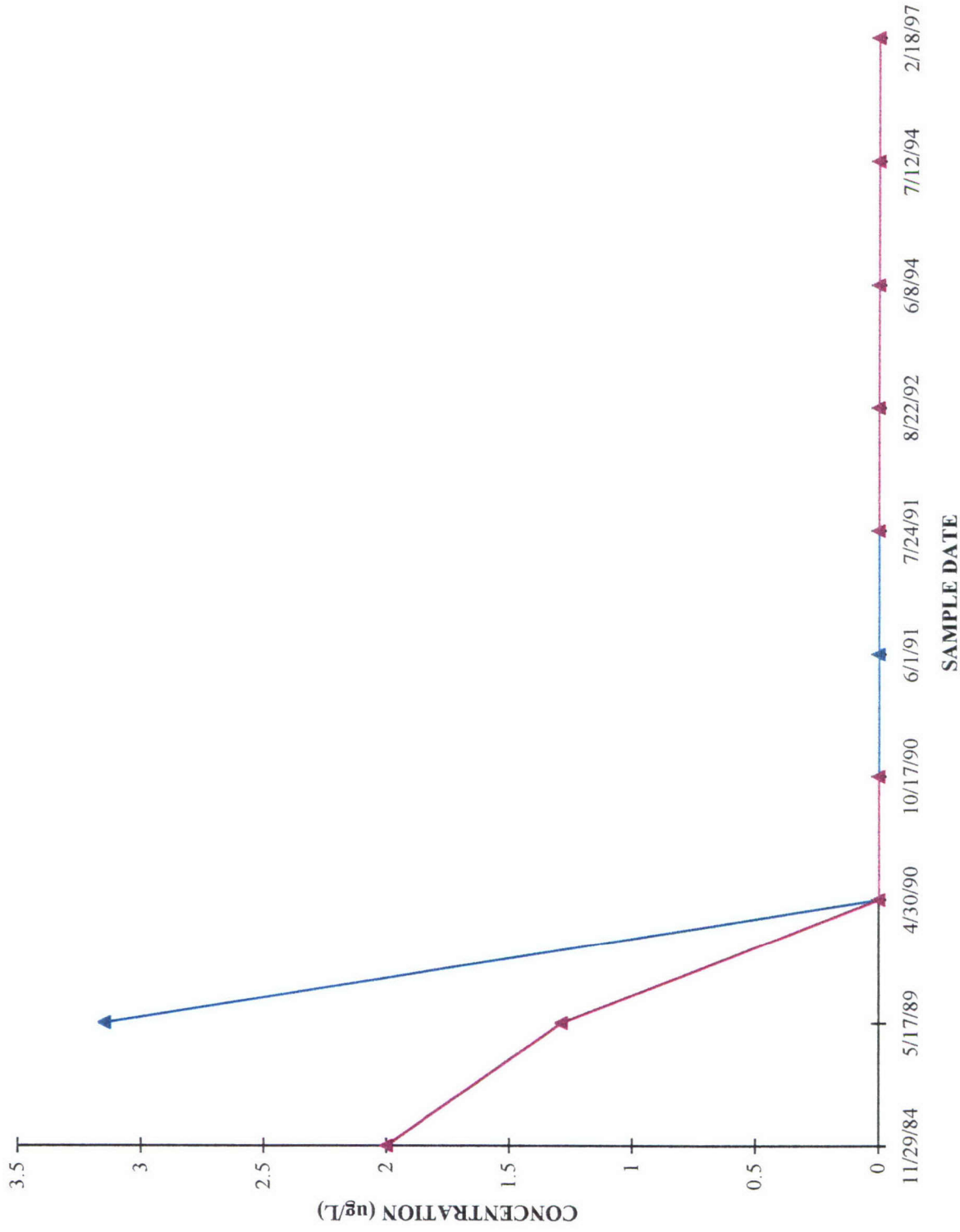
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW100 - RDX



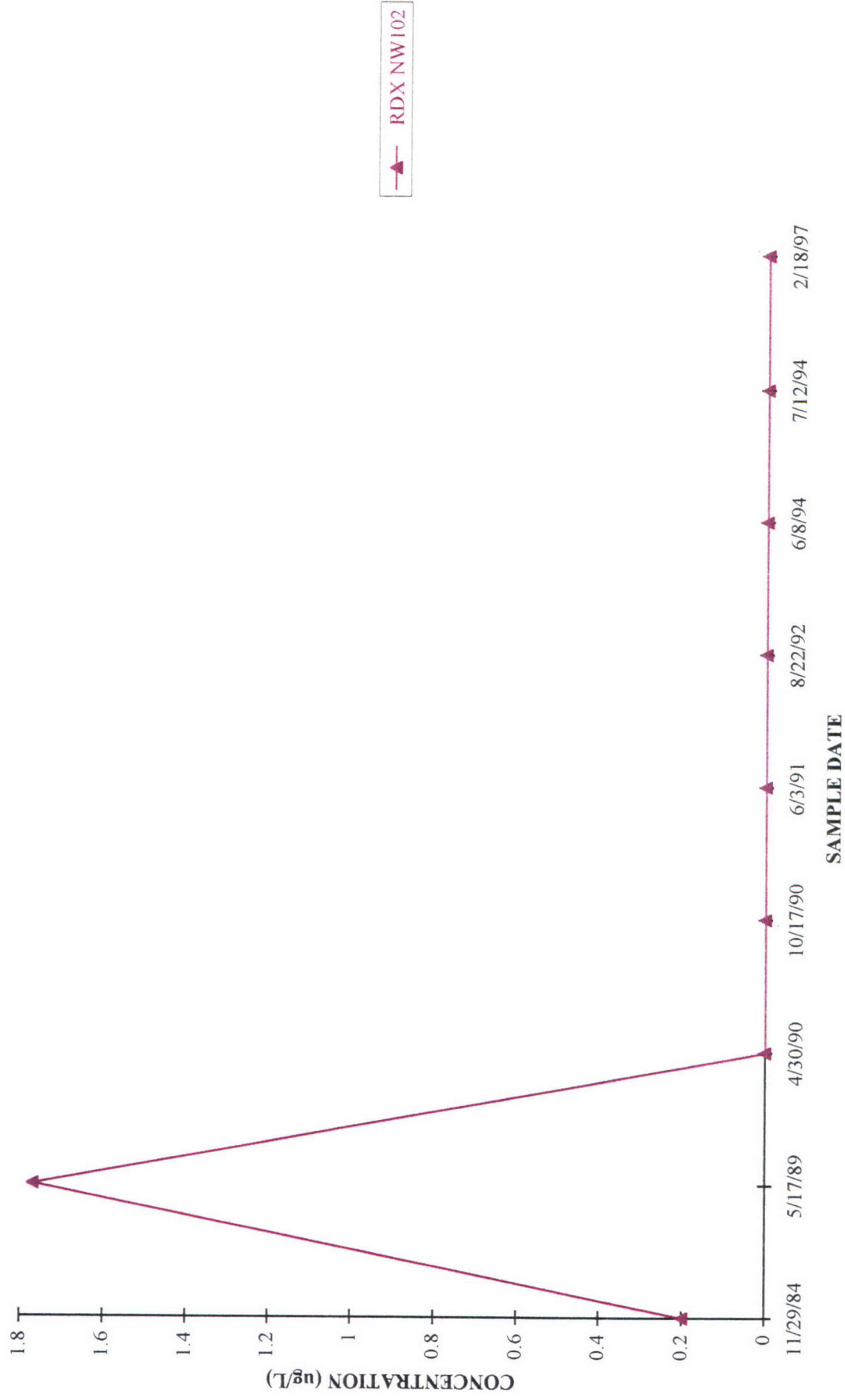
—▲— RDX NW100

CORNHUSKER ARMY AMMUNITION PLANT WELL NW101 - HMX AND RDX

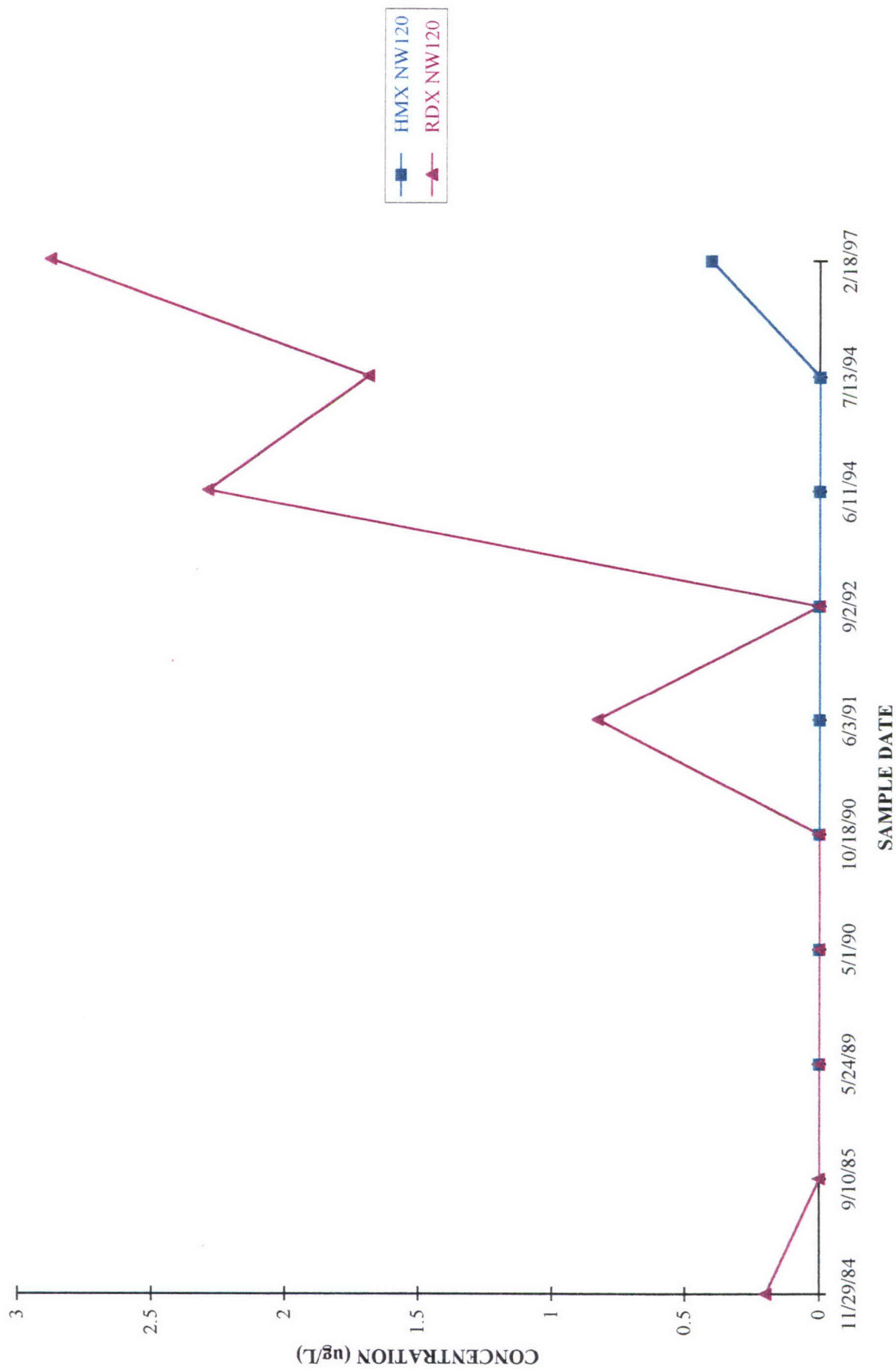


CORNHUSKER ARMY AMMUNITION PLANT

WELL NW102 - RDX

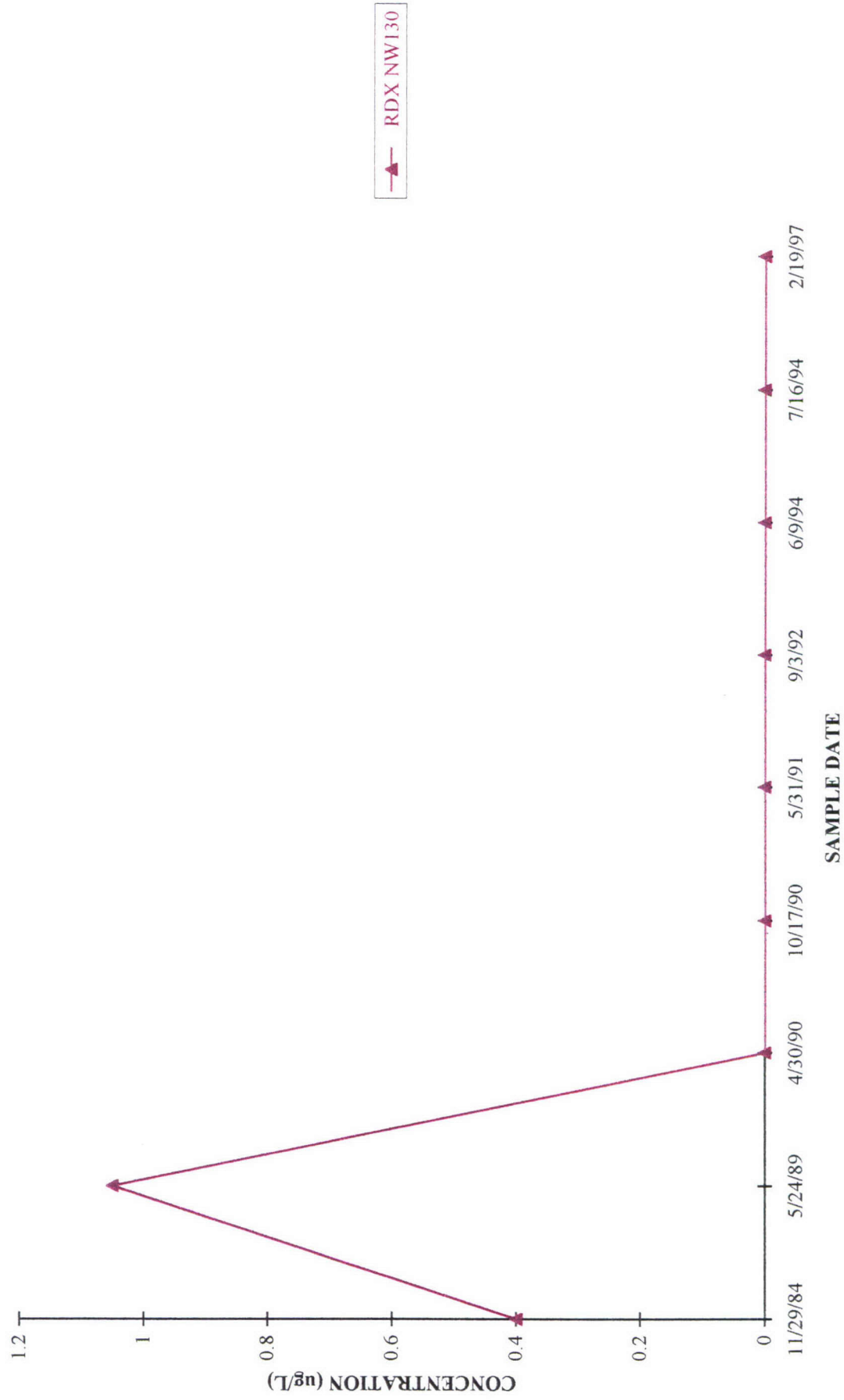


CORNHUSKER ARMY AMMUNITION PLANT WELL NW120 - HMX AND RDX



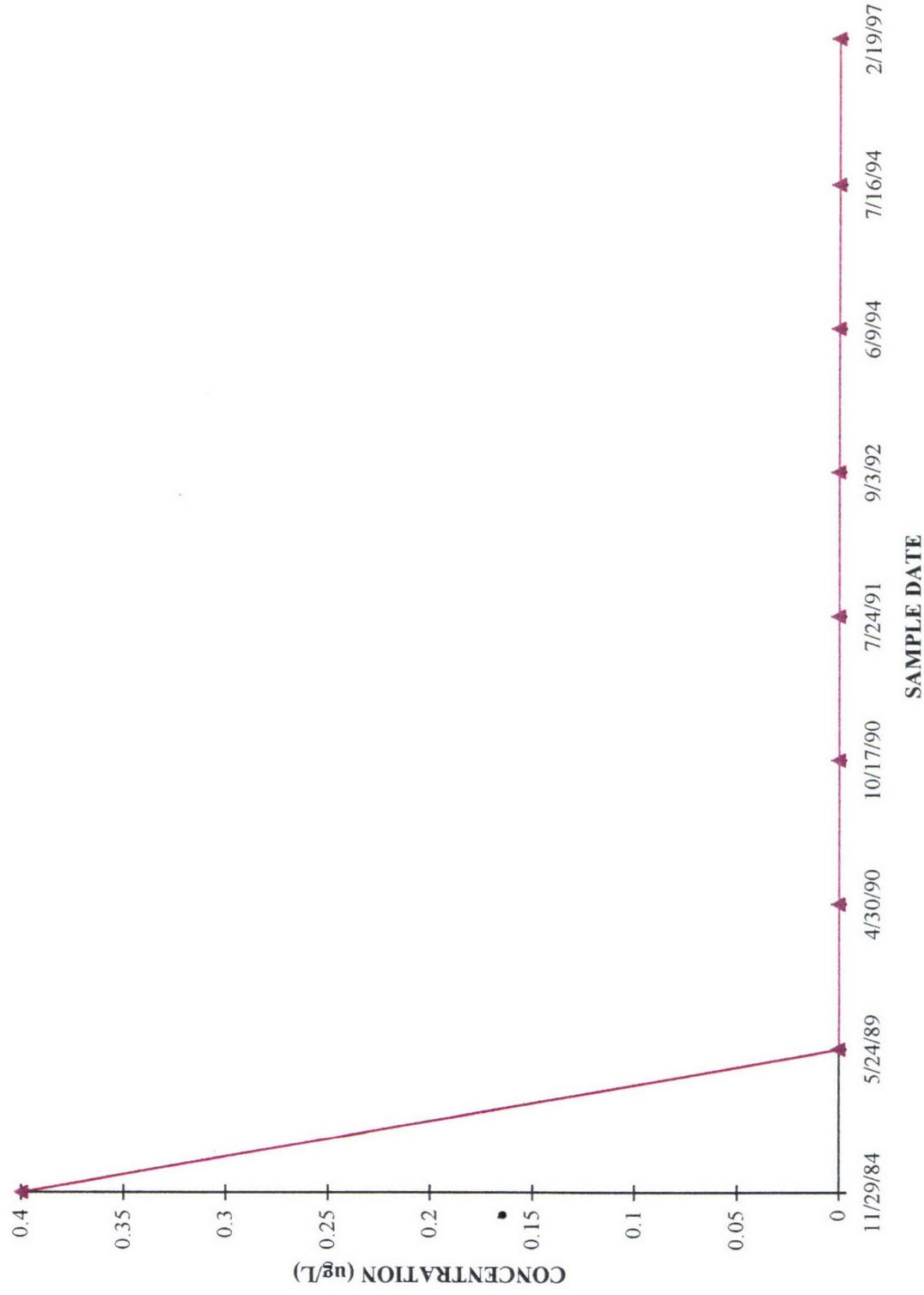
CORNHUSKER ARMY AMMUNITION PLANT

WELL - NW130 RDX



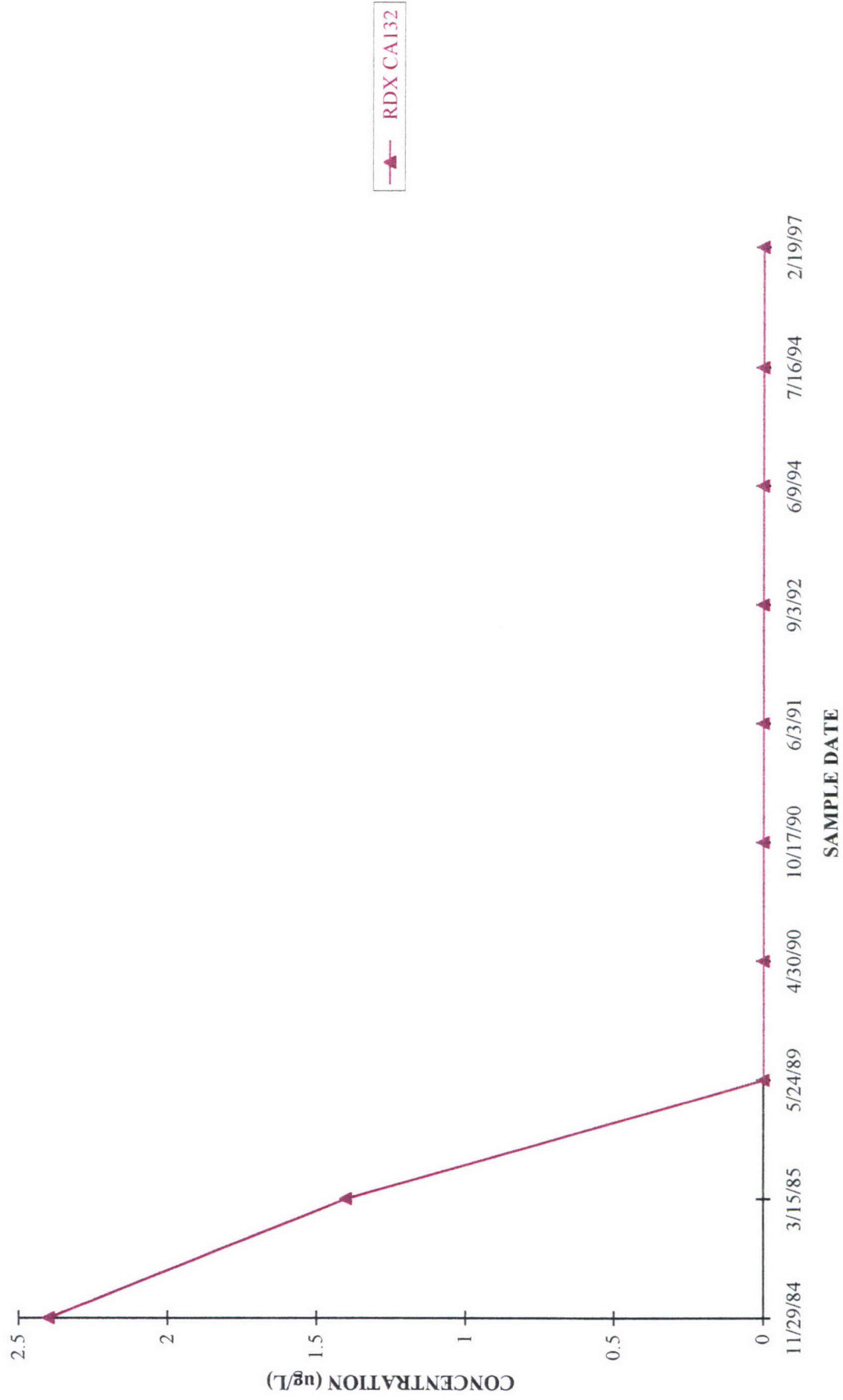
CORNHUSKER ARMY AMMUNITION PLANT

WELL NW131 - RDX



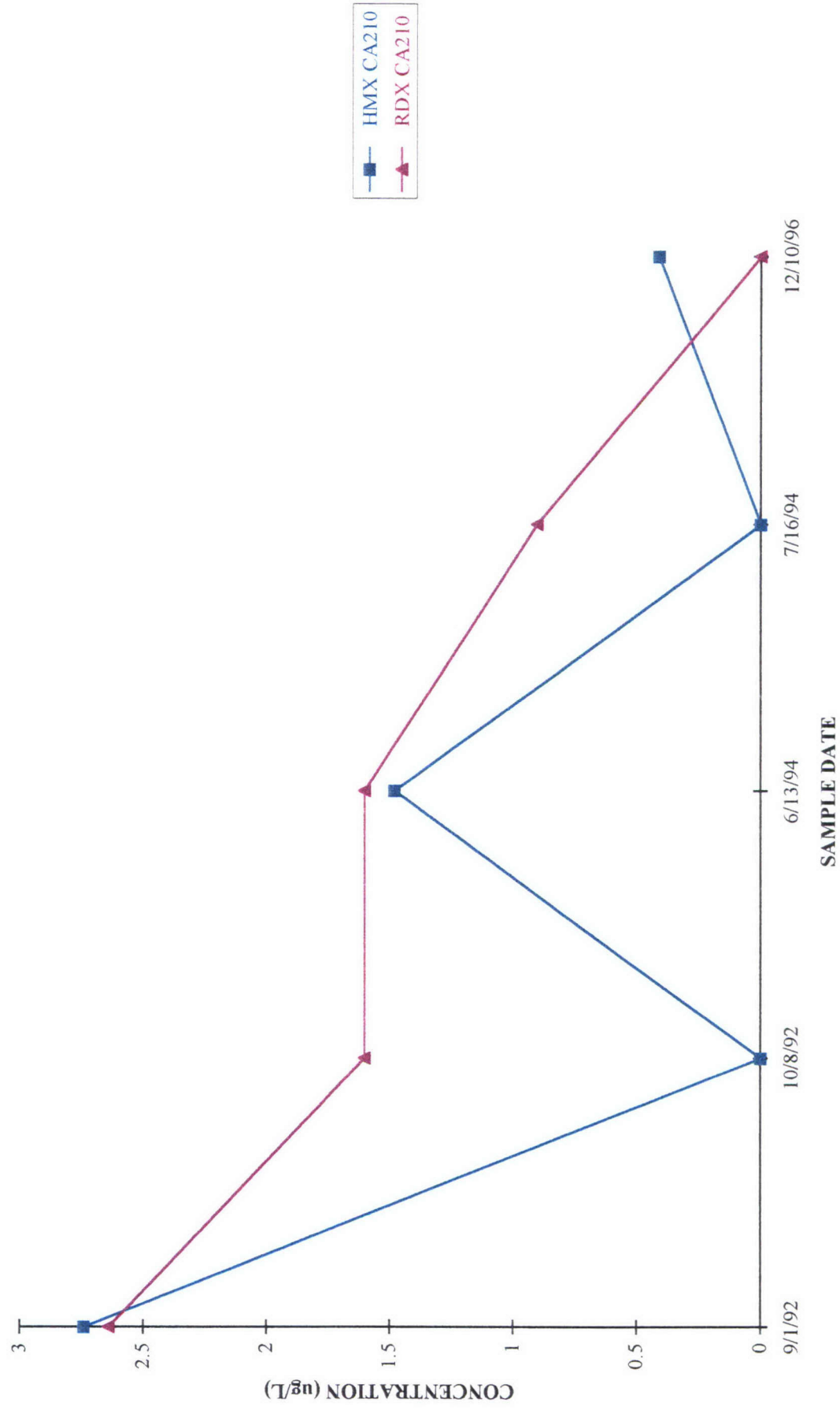
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA132 - RDX

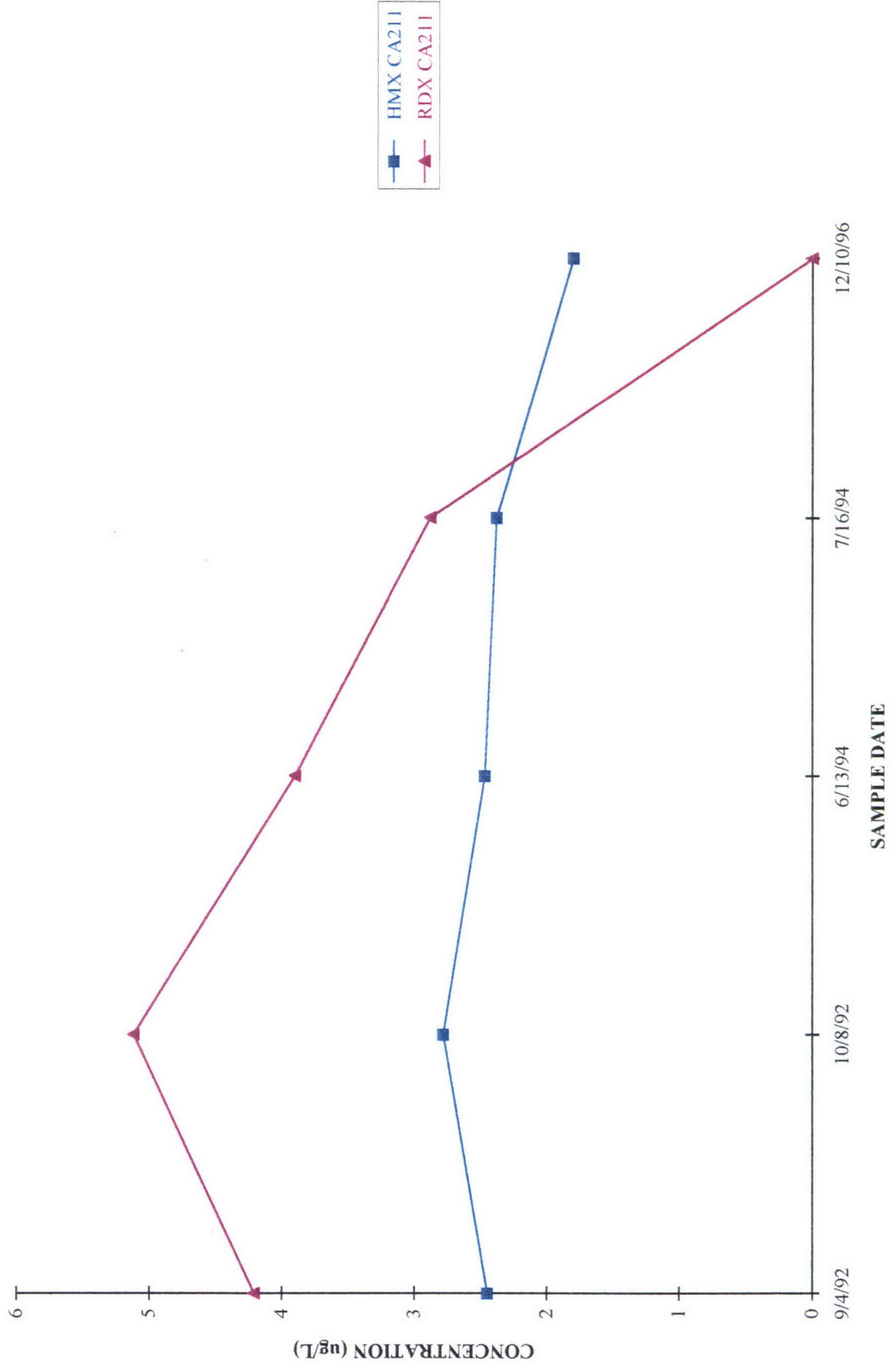


CORNHUSKER ARMY AMMUNITION PLANT

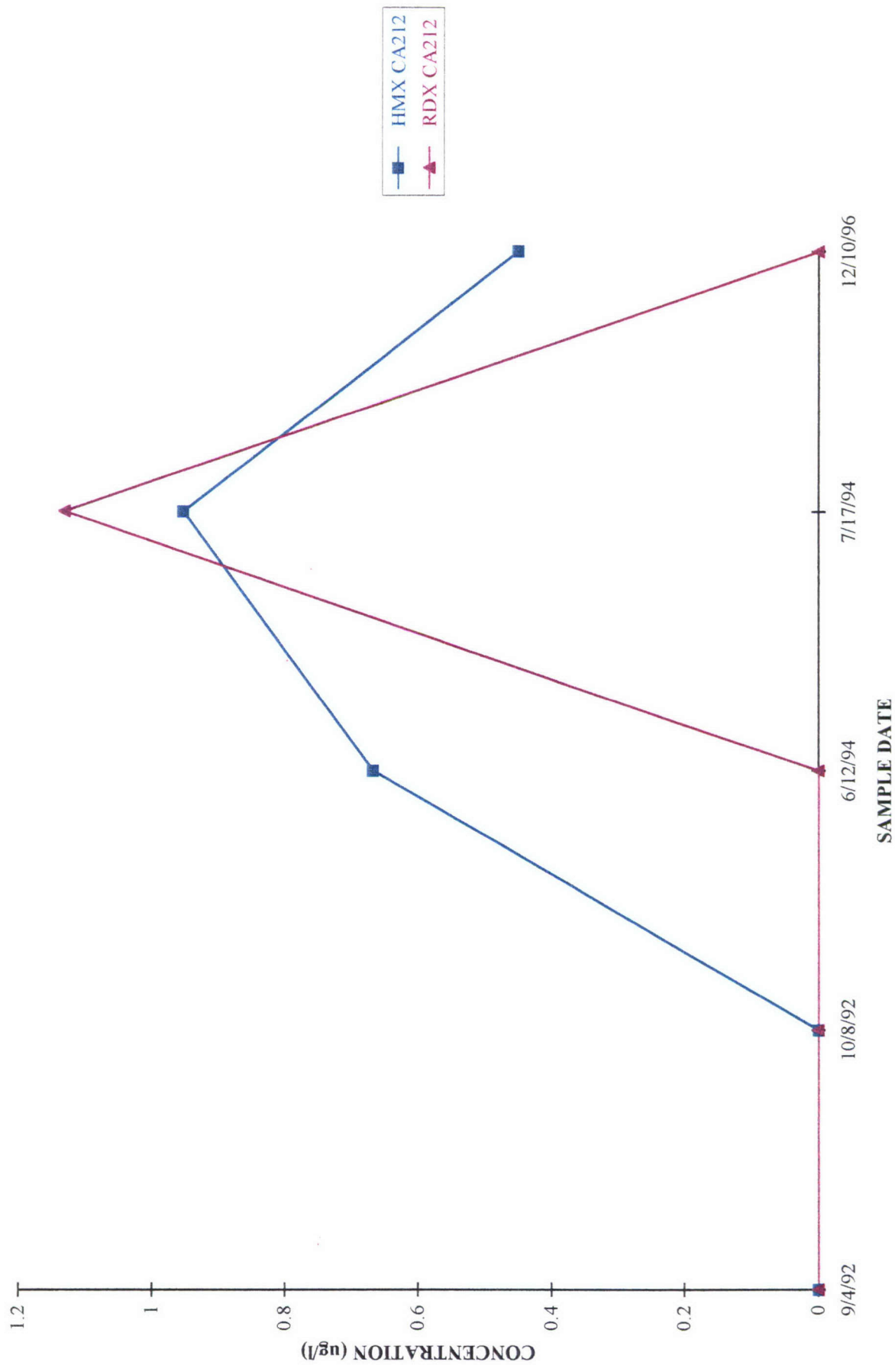
WELL CA210 - HMX AND RDX



CORNHUSKER ARMY AMMUNITION PLANT WELL CA211 - HMX AND RDX

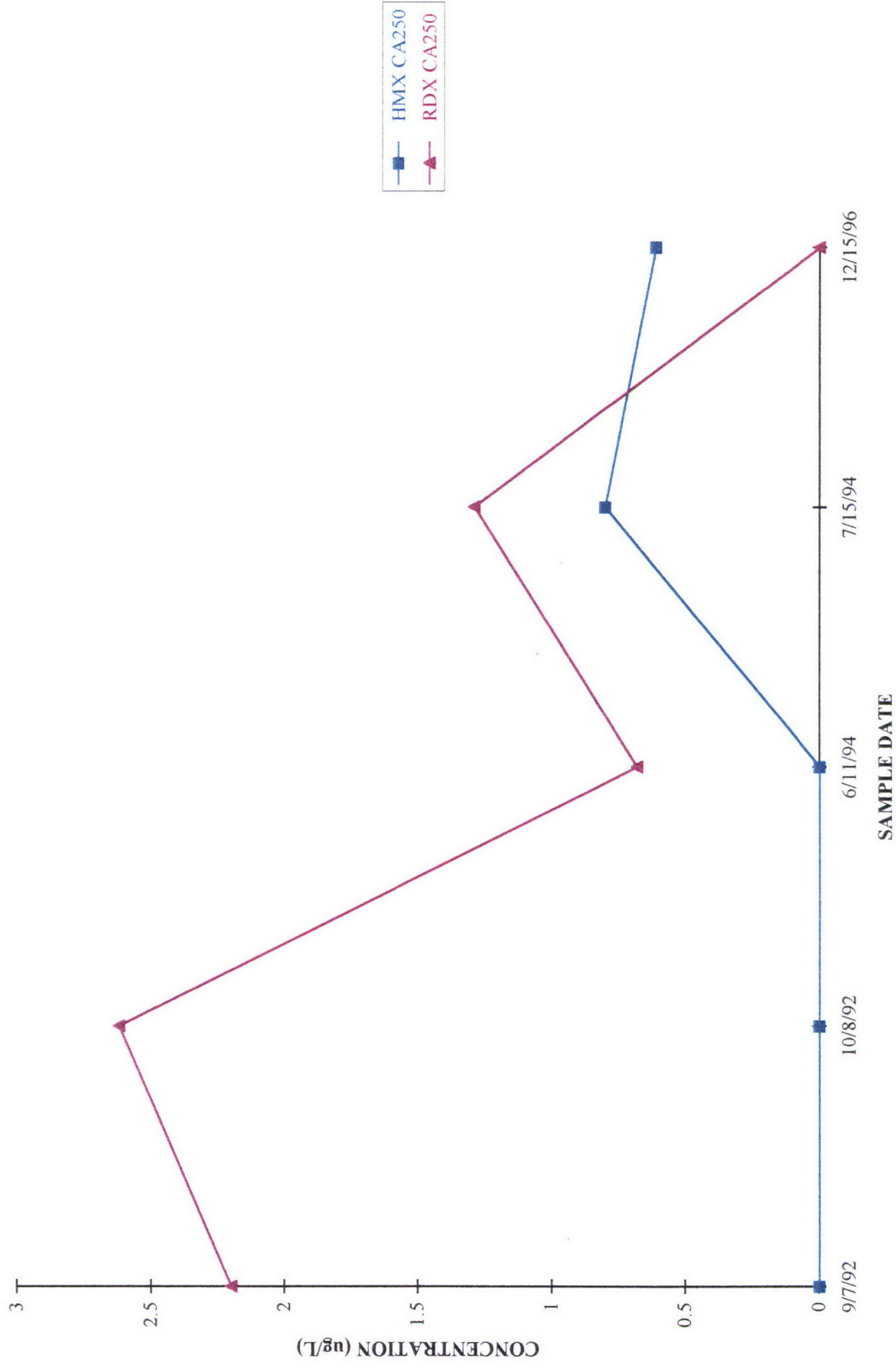


CORNHUSKER ARMY AMMUNITION PLANT WELL CA212 - HMX AND RDX



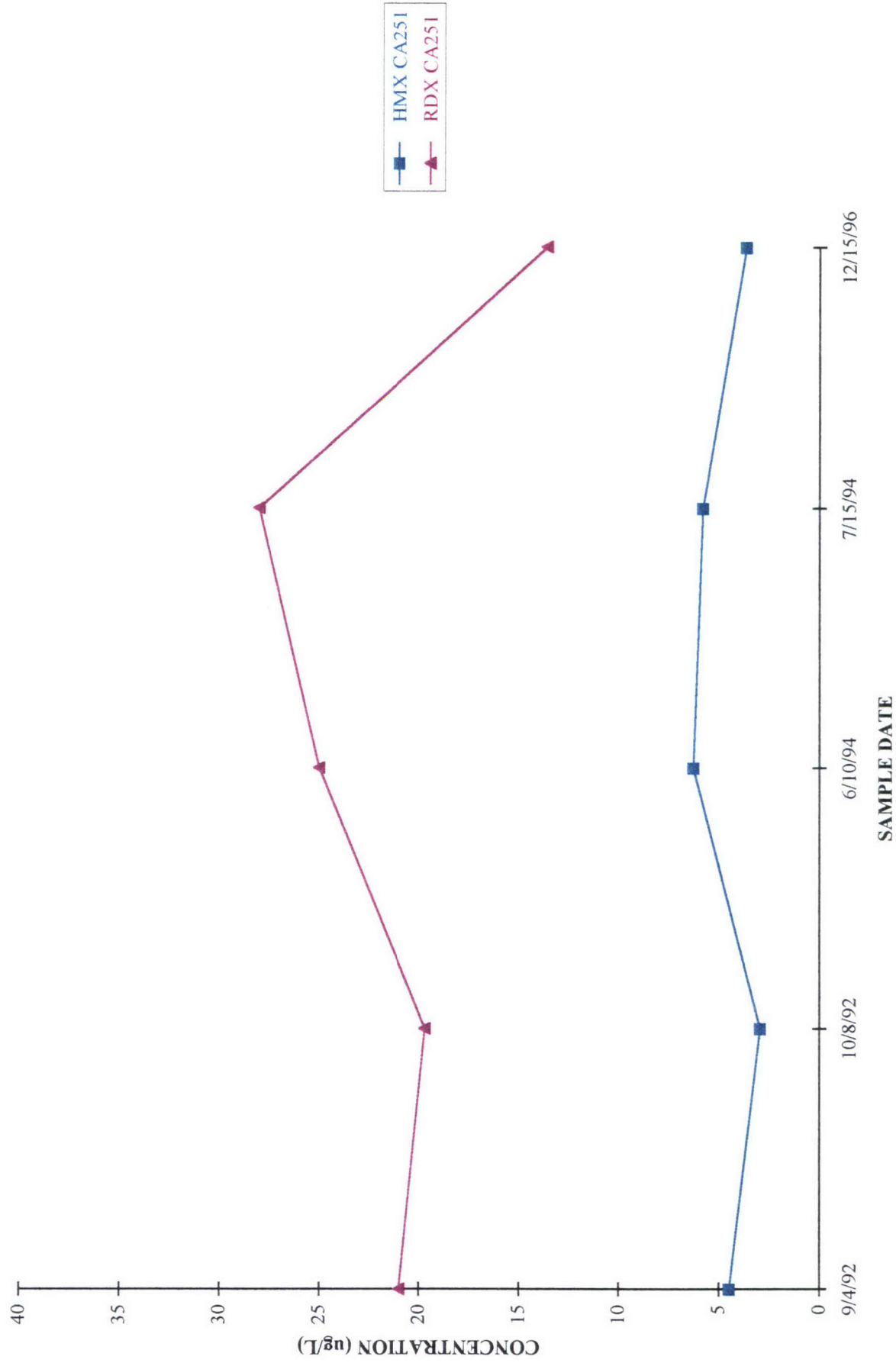
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA250 - HMX AND RDX



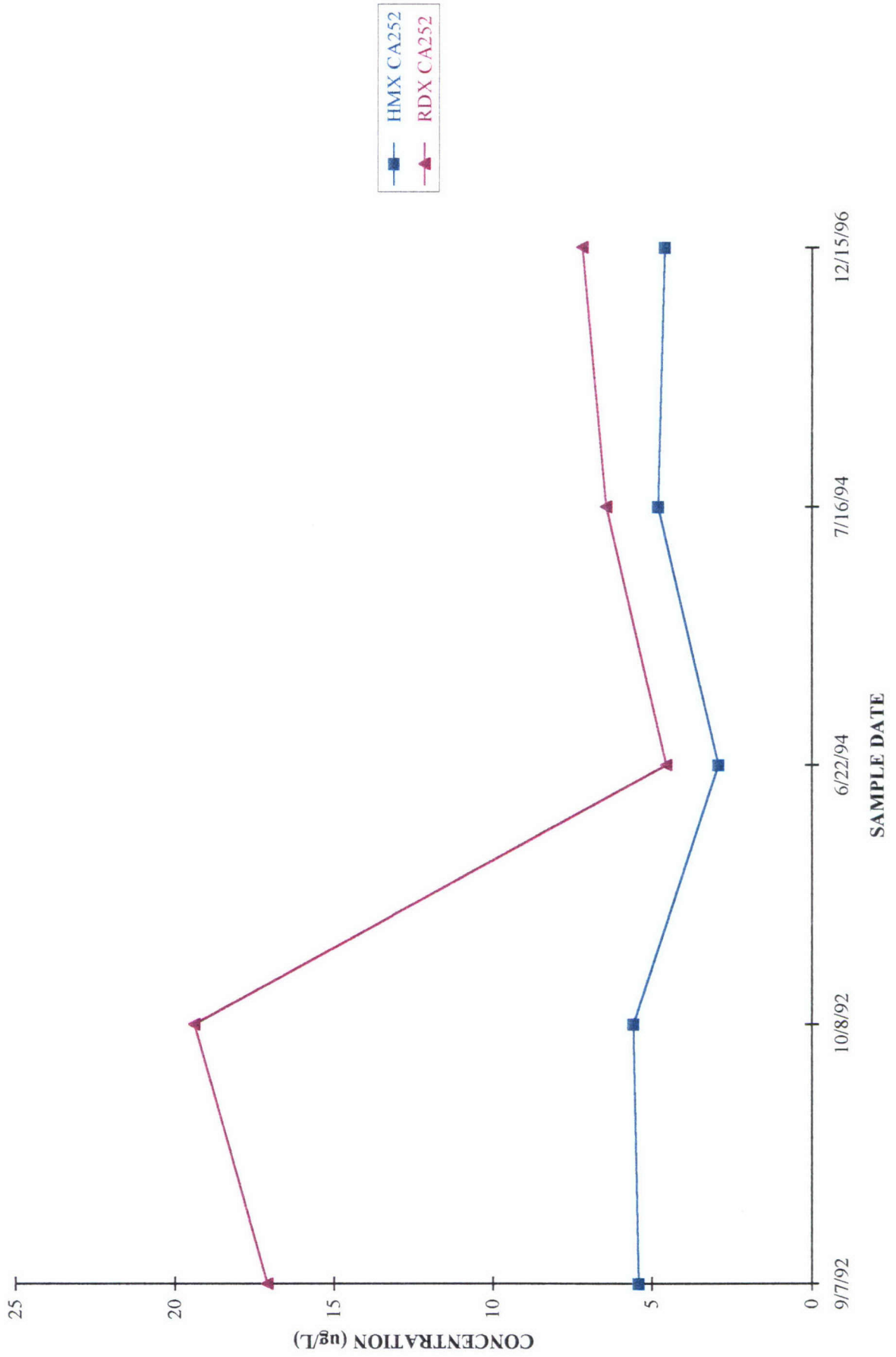
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA251 - HMX AND RDX



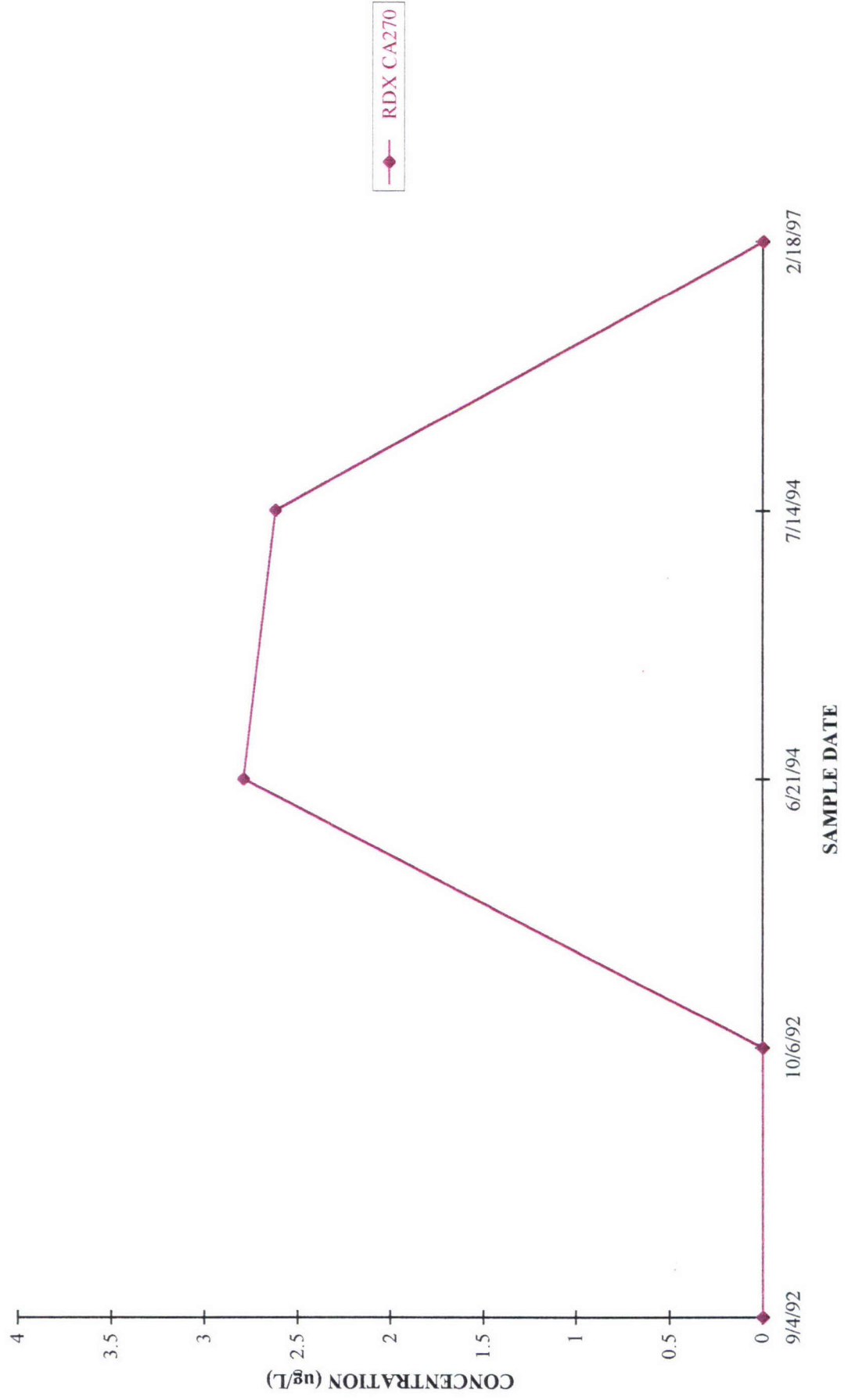
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA252 - HMX AND RDX



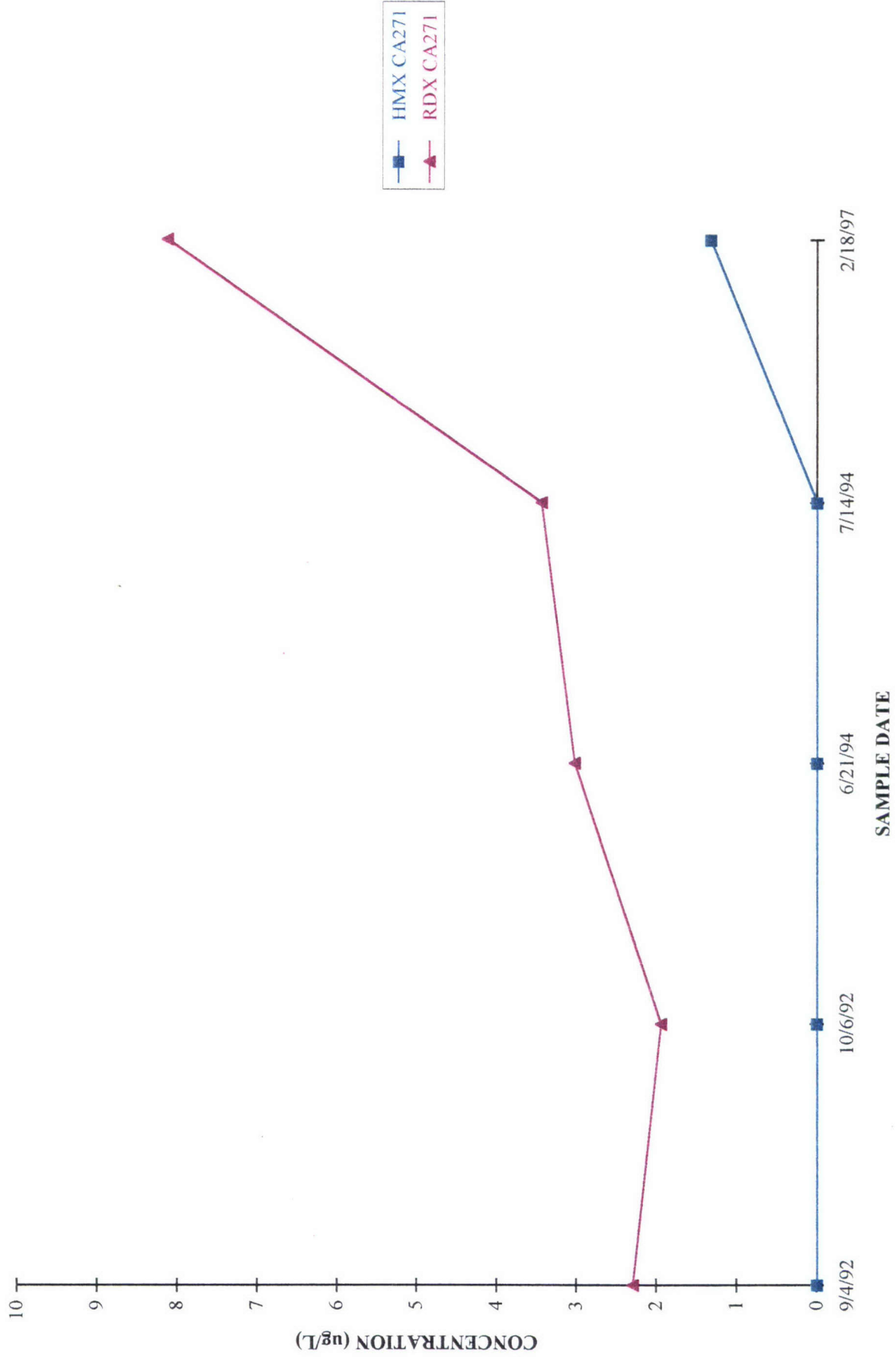
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA270 - RDX



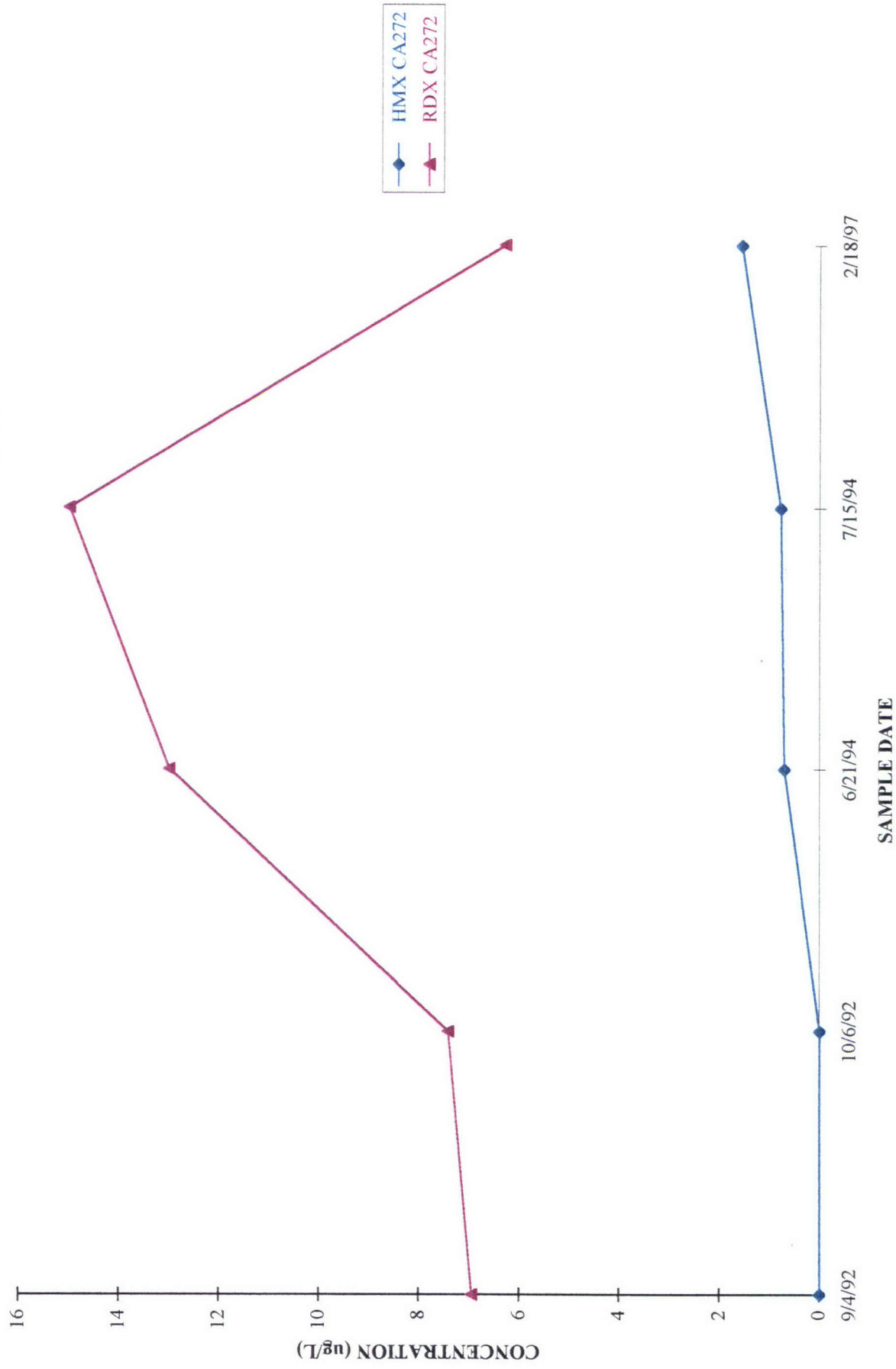
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA271 - HMX AND RDX



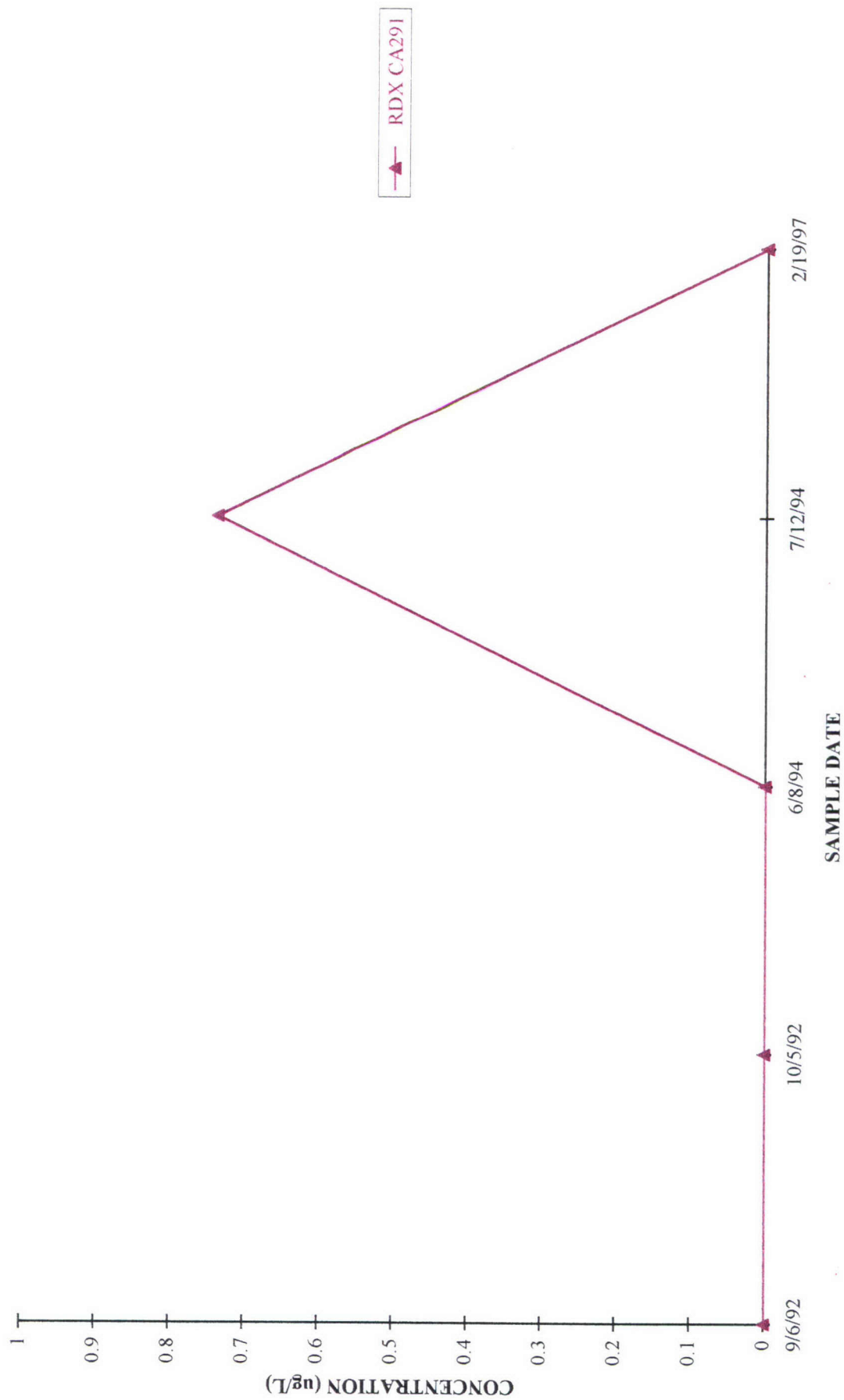
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA272 - HMX AND RDX



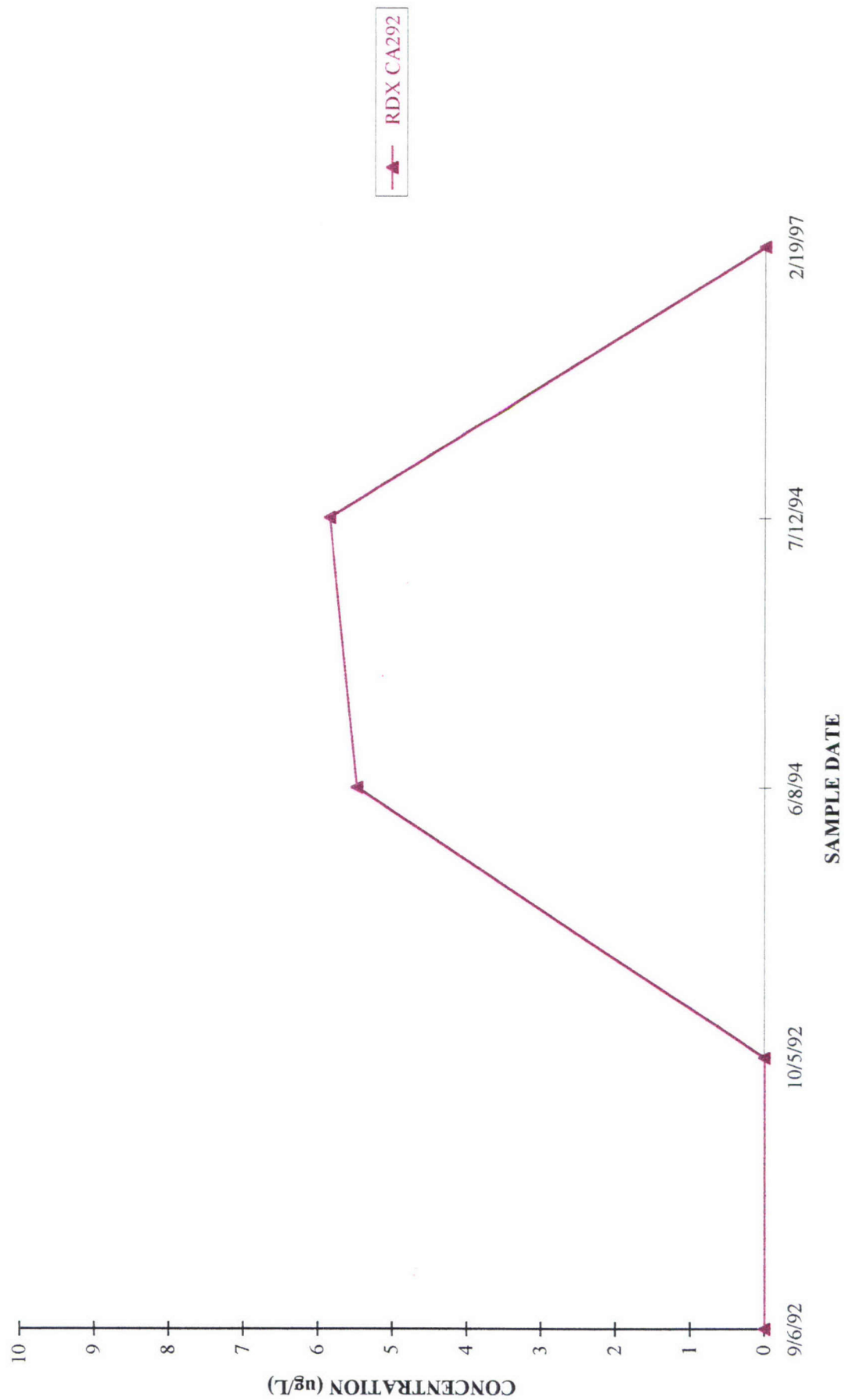
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA291 - RDX



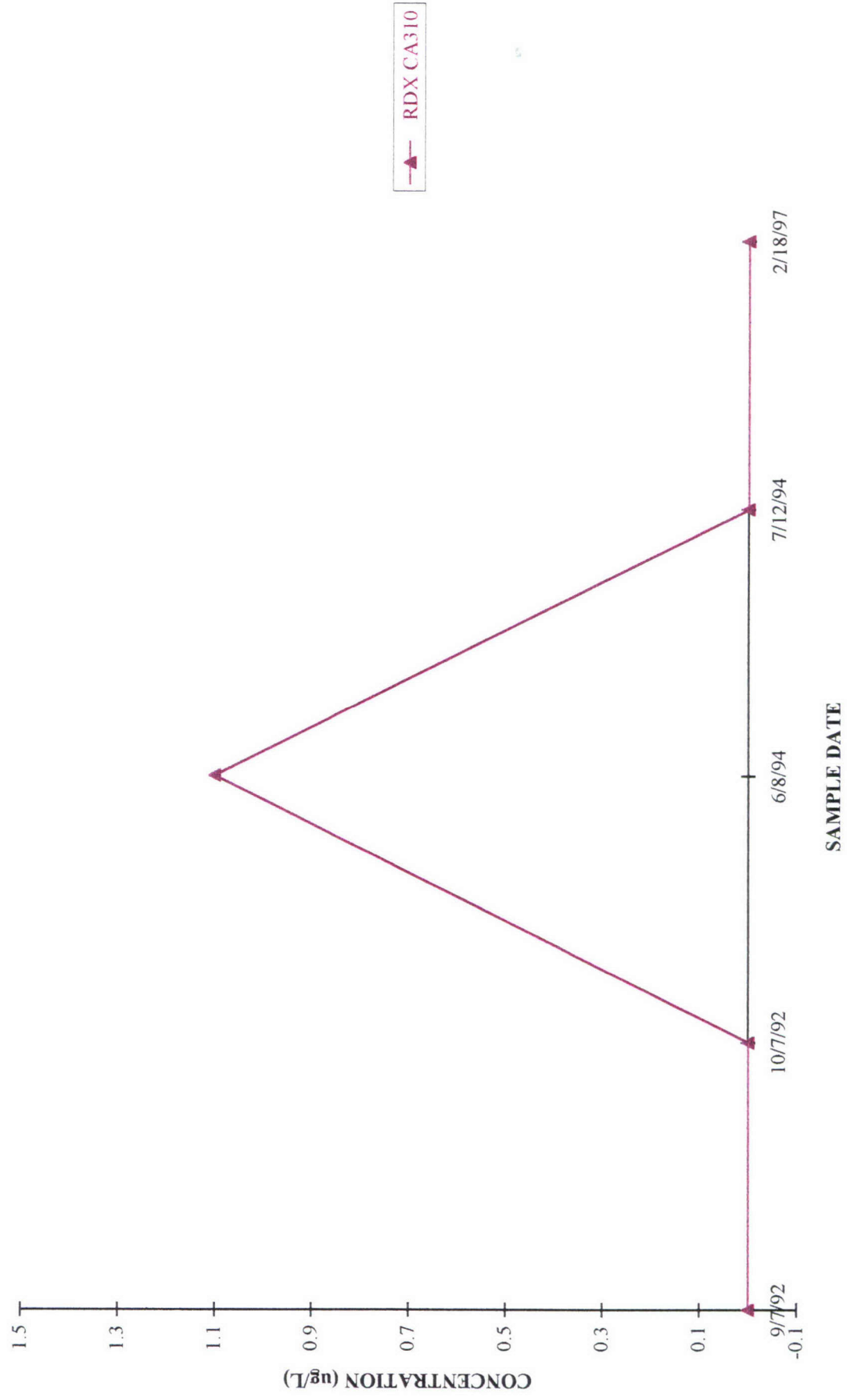
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA292 - RDX



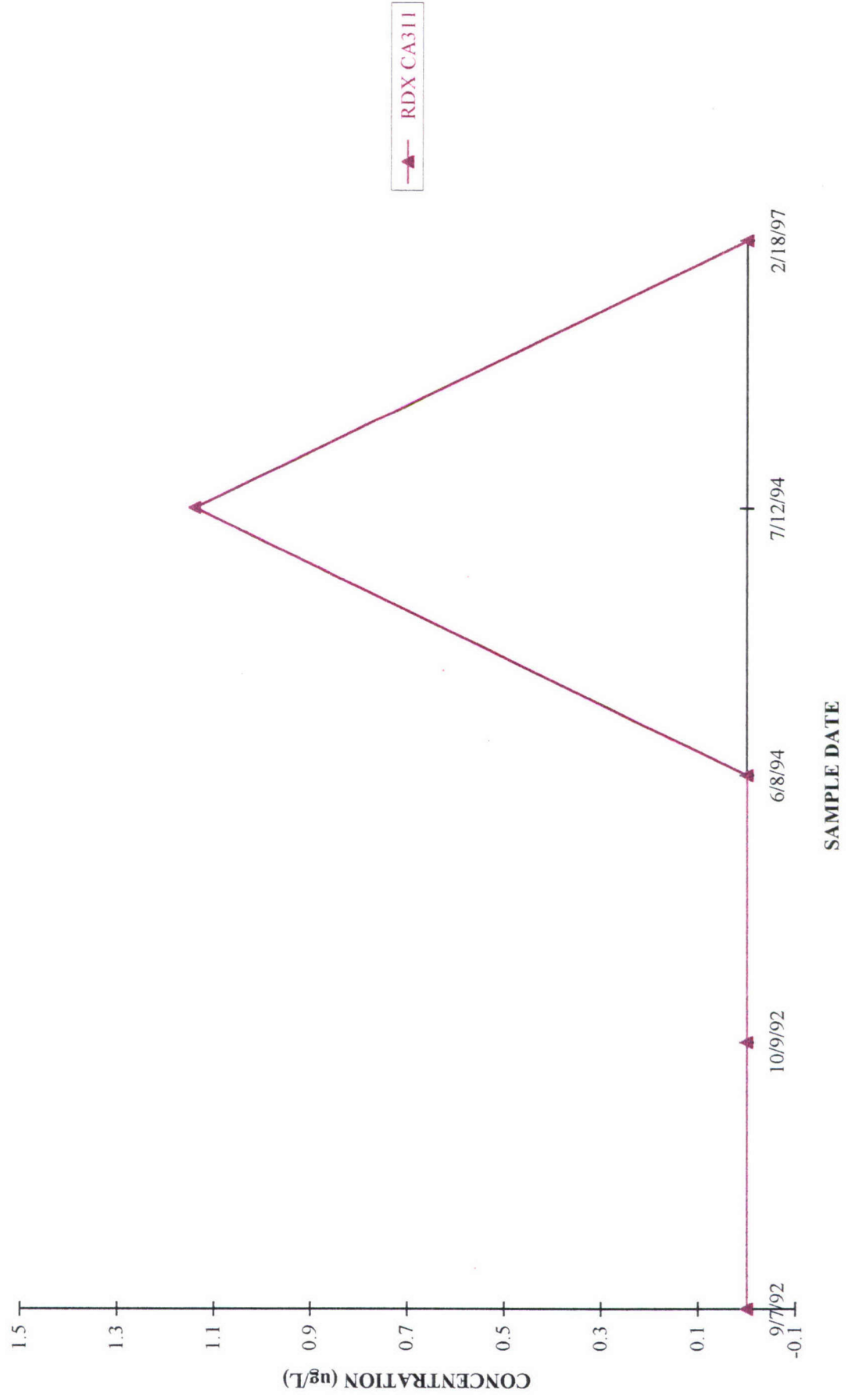
CORNHUSKER ARMY AMMUNITION PLANT

WELL CA310 - RDX

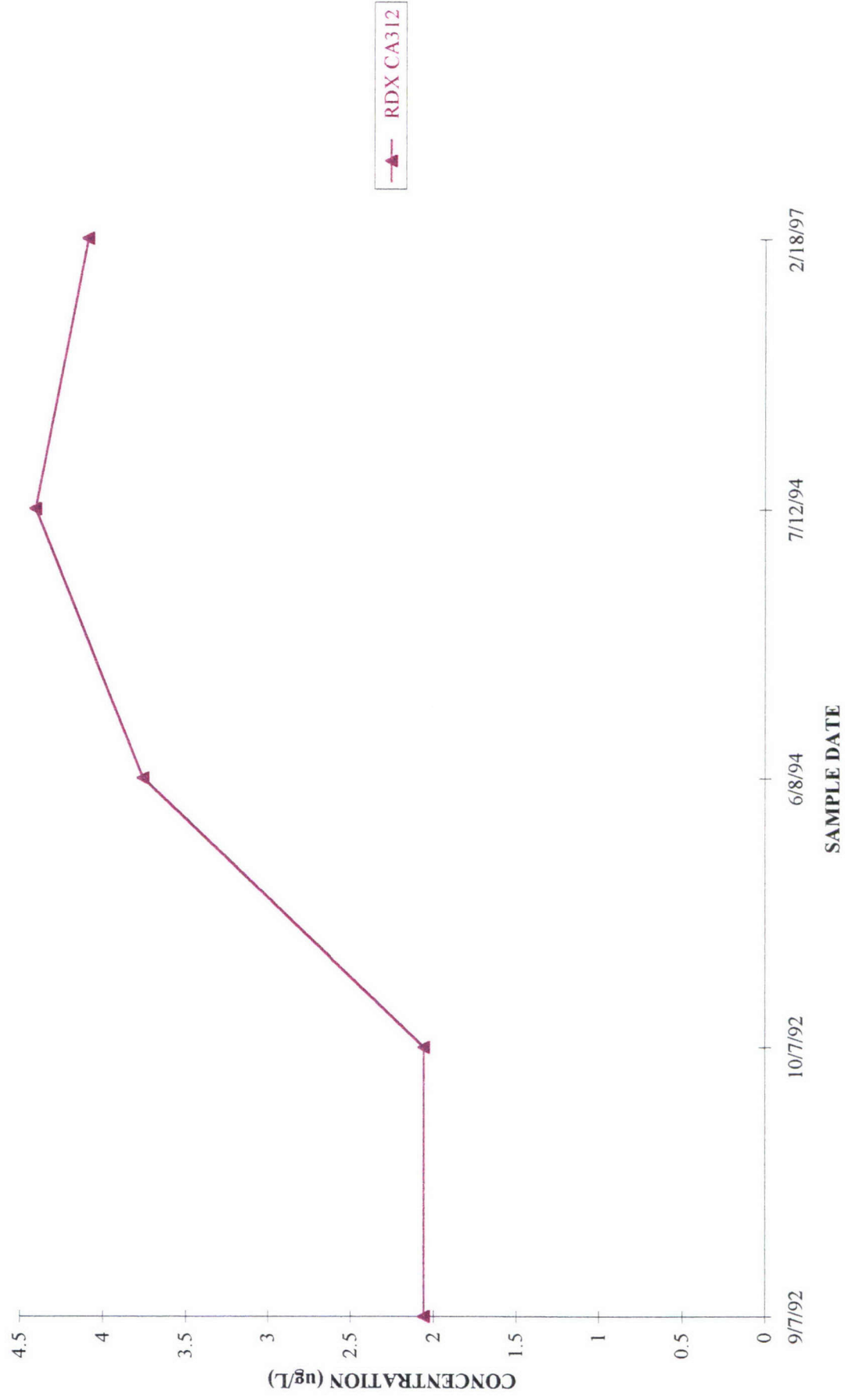


CORNHUSKER ARMY AMMUNITION PLANT

WELL CA311 - RDX



CORNHUSKER ARMY AMMUNITION PLANT WELL CA312 - RDX



CORNHUSKER ARMY AMMUNITION PLANT

WELL CA342 - RDX



TABLE C-1

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW020**

FIELD ID	Maximum Hit	Frequency	NW020		NW020		NW020		NW020		NW020		NW020	
METHOD			UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE			12/9/96	7/17/94	6/14/94	8/26/92	5/31/91							
			Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	2.3	9/11	1.2	0.125	1.54	1.23	0.839	0.382						
1,3-Dinitrobenzene	-	0/10	<	0.989	<	0.549	<	0.611	<	0.458				
2,4,6-Trinitrotoluene	53	11/11	30	0.29	23	25	25.5	10.1						
2,4-Dinitrotoluene	2.4	5/11	0.78	0.233	0.311	<	0.106	<	4					
2,6-Dinitrotoluene	17.7	1/11	<	0.2	<	0.26	<	0.074	17.7					
2-Amino-4,6-Dinitrotoluene	13	5/8	13	0.173	12	<	0.954	<	9.9					
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA					
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA					
4-Amino-2,6-Dinitrotoluene	10.8	2/3	8	0.309	NA	10.8	NA	NA	NA					
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA					
HMX	9.9	7/7	4.8	0.16	9.54	7.63	6.74	5.97						
Nitrobenzene	-	0/7	<	0.231	<	0.817	<	0.645	<	0.682				
RDX	43	11/11	12	0.558	26	24	25.4	28						
Tetryl	-	0/5	<	0.253	<	1.18	<	12	<	0.631				

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-1

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW020**

FIELD ID	Maximum Hit	Frequency	NW020 D1 9/10/85	NW020 4/16/85	NW020 99 3/15/85	NW020 99 11/29/84
METHOD			Result	Qual	Result	Qual
COLLECT DATE			RL	RL	RL	RL
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	2.3	9/11	<	1.4	2.3	<
1,3-Dinitrobenzene	-	0/10	NA	NA	<	0.1
2,4,6-Trinitrotoluene	53	11/11	53	44	32	13
2,4-Dinitrotoluene	2.4	5/11	<	0.56	2.4	<
2,6-Dinitrotoluene	17.7	1/11	<	1.2	<	0.1
2-Amino-4,6-Dinitrotoluene	13	5/8	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	10.8	2/3	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA
HMX	9.9	7/7	NA	NA	NA	NA
Nitrobenzene	-	0/7	NA	NA	NA	NA
RDX	43	11/11	41.7	43	30	17
Tetryl	-	0/5	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-2

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW021**

FIELD ID	NW021	NW021	NW021	NW021	NW021	NW021	NW021	NW021	NW021
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	12/9/96	7/17/94	7/17/94	6/14/94	8/26/92	6/2/91	8/26/92	6/2/91	6/2/91
	Maximum	Frequency	Hit	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (ug/L)									
1,3,5-Trinitrobenzene	2.5	6/12	0.41	0.125	0.436	0.673	<	0.449	<
1,3-Dinitrobenzene	-	0/11	<	0.989	<	0.549	<	0.611	<
2,4,6-Trinitrotoluene	27.4	12/12	3.8	0.29	3.09	3.04	3.82	1.6	<
2,4-Dinitrotoluene	2.5	8/12	0.24	0.233	<	0.345	0.34	<	0.397
2,6-Dinitrotoluene	2.78	1/12	<	0.2	<	0.26	<	0.0738	<
2-Amino-4,6-Dinitrotoluene	6.87	4/7	<	0.173	4.25	3.71	6.87	<	4.21
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	1.6	1/1	1.6	0.309	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA
HMX	10.2	7/7	<	0.16	5.36	4.26	10.2	4.07	<
Nitrobenzene	-	0/8	<	0.231	<	0.817	<	0.645	<
RDX	30	12/12	4.6	0.558	U	4.34	5.43	4.01	<
Tetryl	-	0/7	<	0.253	<	1.18	NA	<	0.631

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-2

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW021**

FIELD ID	Maximum	Frequency	NW021		NW021		NW021		NW021	
METHOD	Hit		D1	99	99	99	99	99	99	99
COLLECT DATE			9/10/85	4/16/85	3/15/85	11/29/84				
			Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	2.5	6/12	<	1.4	2.5	0.9	<	0.1	0.6	<
1,3-Dinitrobenzene	-	0/11		NA	<	<	<	0.1	<	0.1
2,4,6-Trinitrotoluene	27.4	12/12	27.4		19	10			11	
2,4-Dinitrotoluene	2.5	8/12	0.722		2.5	1.3			0.5	
2,6-Dinitrotoluene	2.78	1/12	<	1.2	<	<	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	6.87	4/7		NA	NA	NA		NA	NA	NA
2-Nitrotoluene	-	0/1		NA	NA	NA		NA	NA	NA
3-Nitrotoluene	-	0/1		NA	NA	NA		NA	NA	NA
4-Amino-2,6-Dinitrotoluene	1.6	1/1		NA	NA	NA		NA	NA	NA
4-Nitrotoluene	-	0/1		NA	NA	NA		NA	NA	NA
HMX	10.2	7/7		NA	NA	NA		NA	NA	NA
Nitrobenzene	-	0/8		NA	NA	NA		NA	NA	NA
RDX	30	12/12	26		30	19			21	
Tetryl	-	0/7		NA	NA	NA		NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-3

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW022**

FIELD ID	NW022	NW022	NW022	NW022	NW022	NW022
METHOD	UW33	UW25	DI	99	11/29/84	
COLLECT DATE	7/25/91	6/2/91	9/10/85			
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	< 0.425	< 0.21	<	< 0.1	<	0.1
1,3-Dinitrobenzene	< 0.549	< 0.458	<	< 0.1	<	0.1
2,4,6-Trinitrotoluene	< 0.451	< 0.426	<	< 0.1	<	0.1
2,4-Dinitrotoluene	< 0.26	< 0.397	<	< 0.1	<	0.1
2,6-Dinitrotoluene	< 0.26	< 0.6	<	< 0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	< 0.5	< 0.8	<	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA
HMX	< 0.563	< 5.3	<	NA	NA	NA
Nitrobenzene	< 0.817	< 0.682	<	NA	NA	NA
RDX	< 0.412	NA	<	< 0.1	<	0.1
Tetryl	< 1.18	1.77	<	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

CORNHUSKER ARMY AMMUNITION PLANT

WELL G0024

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-4

**CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024**

FIELD ID	G0024	G0024	G0024	G0024	G0024	G0024	G0024	G0024	G0024
METHOD	UW14	UW14	UW14	UW14	UW14	UW14	UW14	UW14	UW14
COLLECT DATE	10/16/90	4/24/90	5/15/89	11/8/88	7/26/88				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	1.3	< 0.626	3/24	< 0.626	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56
1,3-Dinitrobenzene	-	< 0.519	0/14	< 0.519	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
2,4,6-Trinitrotoluene	323	< 0.588	19/24	4.69	10.3	9.82	< 0.6	< 0.6	< 0.6
2,4-Dinitrotoluene	0.26	< 0.612	1/24	< 0.612	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2,6-Dinitrotoluene	-	< 1.15	0/24	< 1.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
2-Amino-4,6-Dinitrotoluene	6.5	NA	4/6	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	NA	0/1	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	NA	0/1	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	12	NA	2/3	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	NA	0/1	NA	NA	NA	NA	NA	NA
HMX	8.62	< 1.65	7/9	1.78	5.19	2.66	< 1.13	< 1.13	< 1.13
Nitrobenzene	-	< 1.07	0/14	< 1.07	< 1.13	< 1.13	< 1.13	< 1.13	< 1.13
RDX	180	< 2.11	21/24	11.9	37.8	18	< 1.13	< 1.13	< 1.13
Tetryl	-	< 0.556	0/6	< 0.556	NA	NA	NA	NA	NA

U - Unconfirmed Result
NA - Not Analyzed
Qual - Qualification
RL - Reporting Limit
Historical reporting limits were not available
USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT

WELL G0024

FIELD ID	Maximum		Frequency	G0024		G0024		G0024		G0024		G0024	
METHOD	Hit			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
COLLECT DATE				1/25/88	4/15/87	9/24/86	3/12/86	12/11/85					
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	1.3		3/24	<	0.56	<	0.56	<	1.4	<	1.4	<	1.4
1,3-Dinitrobenzene	-		0/14		NA		NA		NA		NA		NA
2,4,6-Trinitrotoluene	323		19/24	27		13.5		19.6		14			
2,4-Dinitrotoluene	0.26		1/24	<	0.6	<	0.6	<	0.56	<	0.56	<	0.56
2,6-Dinitrotoluene	-		0/24	<	0.55	<	0.55	<	1.2	<	1.2	<	1.2
2-Amino-4,6-Dinitrotoluene	6.5		4/6		NA		NA		NA		NA		NA
2-Nitrotoluene	-		0/1		NA		NA		NA		NA		NA
3-Nitrotoluene	-		0/1		NA		NA		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	12		2/3		NA		NA		NA		NA		NA
4-Nitrotoluene	-		0/1		NA		NA		NA		NA		NA
HMX	8.62		7/9		NA		NA		NA		NA		NA
Nitrobenzene	-		0/14		NA		NA		NA		NA		NA
RDX	180		21/24	34.7	0.89		16.9		50		48.6		
Tetryl	-		0/6		NA		NA		NA		NA		NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USABC Method UW51

TABLE C-4

**CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024**

FIELD ID	G0024		G0024		G0024		G0024		G0024	
METHOD	D1		D1		3S		D1		3S	
COLLECT DATE	9/11/85		6/19/85		12/4/84		12/4/84		9/19/84	
Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	1.3	3/24	<	1.4	<	1.4	NA	<	1.4	NA
1,3-Dinitrobenzene	-	0/14	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	323	19/24	5.01	15	13.1	NA	NA	13.1	NA	NA
2,4-Dinitrotoluene	0.26	1/24	<	0.56	<	0.6	NA	<	1.2	NA
2,6-Dinitrotoluene	-	0/24	<	1.2	<	1.2	NA	<	1.2	NA
2-Amino-4,6-Dinitrotoluene	6.5	4/6	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	12	2/3	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
HMX	8.62	7/9	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	-	0/14	NA	NA	NA	NA	NA	NA	NA	NA
RDX	180	21/24	14.1	41.2	<	9	80.1	NA	NA	NA
Tetryl	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USABC Method UW51

TABLE C-4

**CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024**

FIELD ID	G0024	G0024	G0024	G0024	G0024	G0024	G0024
METHOD	D1	3S	6N	3S	6N	3S	6N
COLLECT DATE	9/19/84	6/15/84	6/15/84	2/10/84	6/15/84	2/10/84	2/10/84
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	RL	Qual	Result	RL	Qual	Result	RL
1,3,5-Trinitrobenzene	1.3	<	0.5	NA	<	1.08	<
1,3-Dinitrobenzene	-	0/14	NA	NA	<	1.24	<
2,4,6-Trinitrotoluene	323	19/24	<	NA	<	1.08	2.1
2,4-Dinitrotoluene	0.26	1/24	<	NA	<	0.62	<
2,6-Dinitrotoluene	-	0/24	<	NA	<	1.58	<
2-Amino-4,6-Dinitrotoluene	6.5	4/6	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	12	2/3	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA
HMX	8.62	7/9	NA	NA	NA	NA	NA
Nitrobenzene	-	0/14	NA	NA	<	1.36	<
RDX	180	21/24	NA	54.8	<	10	NA
Tetryl	-	0/6	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-4

**CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024**

FIELD ID	Frequency	Maximum Hit	G0024 3S 11/2/83 Result	G0024 6N 11/2/83 Qual	G0024 3S 1/15/83 Result	G0024 6N 1/15/83 Qual	G0024 3S 1/6/82 Result	G0024 6N 1/6/82 Qual
METHOD								
COLLECT DATE								
EXPLOSIVES (µg/L)								
1,3,5-Trinitrobenzene	3/24	1.3	NA	<	NA	<	NA	<
1,3-Dinitrobenzene	0/14	-	NA	<	NA	<	NA	<
2,4,6-Trinitrotoluene	19/24	323	NA	11.7	NA	16	NA	323
2,4-Dinitrotoluene	1/24	0.26	NA	<	NA	<	NA	<
2,6-Dinitrotoluene	0/24	-	NA	<	NA	<	NA	<
2-Amino-4,6-Dinitrotoluene	4/6	6.5	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	2/3	12	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA
HMX	7/9	8.62	NA	NA	NA	NA	NA	NA
Nitrobenzene	0/14	-	NA	<	NA	<	NA	<
RDX	21/24	180	171	NA	180	NA	150	NA
Tetryl	0/6	-	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-5
CORNHUSKER ARMY AMMUNITION PLANT
WELL NW030

FIELD ID	NW030	NW030	NW030	NW030	NW030	NW030	NW030	NW030	NW030	NW030	NW030	NW030
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/17/97	7/15/94	7/15/94	6/13/94	8/25/92	5/31/91	11/29/84					
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21
1,3-Dinitrobenzene	0.739	1/6	<	0.989	<	0.549	<	0.739	<	0.611	<	0.458
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.064	<	0.397
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.074	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682
RDX	1.03	3/6	<	0.558	1.03	1.01	<	1.01	<	1.17	<	0.416
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	NA	<	0.631

U - Unconfirmed Result
NA - Not Analyzed
Qual - Qualification
RL - Reporting Limit
Historical reporting limits were not available
USAC Method UW/51

TABLE C-6

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW031**

FIELD ID	NW031	NW031	NW031	NW031	NW031	NW031
METHOD	UW51	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/17/97	7/15/94	6/13/94	8/25/92		
	Maximum	Frequency	Hit	Result	RL	Qual
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	0.7	1/9	<	0.125	<	0.425
1,3-Dinitrobenzene	-	0/9	<	0.989	<	0.549
2,4,6-Trinitrotoluene	-	0/9	<	0.29	<	0.451
2,4-Dinitrotoluene	-	0/9	<	0.233	<	0.26
2,6-Dinitrotoluene	-	0/9	<	0.2	<	0.26
2-Amino-4,6-Dinitrotoluene	-	0/8	<	0.173	<	0.244
2-Nitrotoluene	-	0/1	<	0.319	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA
HMX	-	0/8	<	0.16	<	0.563
Nitrobenzene	-	0/8	<	0.231	<	0.817
RDX	0.4	1/7	<	0.558	<	0.412
Tetryl	1.15	1/7	<	0.253	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-6

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW031**

FIELD ID	NW031	NW031	NW031	NW031	NW031	NW031
METHOD	UW33	UW25	UW33	UW25	UW33	UW25
COLLECT DATE	7/25/91	6/2/91	7/25/91	6/2/91	7/25/91	6/2/91
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	0.7	< 0.425	< 0.21	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	-	< 0.549	< 0.458	< 0.1	< 0.1	< 0.1
2,4,6-Trinitrotoluene	-	< 0.451	< 0.426	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	-	< 0.26	< 0.397	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	-	< 0.26	< 0.6	< 0.1	< 0.1	< 0.1
2-Amino-4,6-Dinitrotoluene	-	< 0.5	< 0.8	NA	NA	NA
2-Nitrotoluene	-	NA	NA	NA	NA	NA
3-Nitrotoluene	-	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	NA	NA	NA	NA	NA
4-Nitrotoluene	-	NA	NA	NA	NA	NA
HMX	-	< 0.563	< 5.3	NA	NA	NA
Nitrobenzene	-	< 0.817	< 0.682	NA	NA	NA
RDX	0.4	< 0.412	NA	0.4	NA	NA
Tetryl	1.15	< 1.18	1.15	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-7

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW032**

FIELD ID	NW032	NW032	NW032	NW032	NW032	NW032	NW032	NW032	NW032	NW032
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/17/97	7/15/94	7/15/94	6/13/94	8/25/92	6/2/91	11/29/84	99	11/29/84	99
	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.449	<	0.21
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.611	<	0.458
2,4,6-Trinitrobenzene	-	0/6	<	0.29	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.0637	<	0.397
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.0738	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.158	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA
HMX	-	0/5	<	0.16	<	0.563	<	1.21	<	5.3
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.645	<	0.682
RDX	-	0/6	<	0.558	<	0.412	<	1.17	<	0.416
Tetryl	-	0/4	<	0.253	<	1.18	<	NA	<	3.56

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-8

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW040**

FIELD ID	NW040	NW040	NW040	NW040	NW040	NW040	NW040	NW040	NW040
METHOD	UW51	UW33	UW33	UW33	UW32	UW25	UW040	UW040	UW040
COLLECT DATE	12/10/96	7/13/94	6/10/94	8/25/92	5/30/91	11/29/84	Qual Result	RL	Qual Result
EXPLOSIVES (µg/L)	Result	RL	Qual Result	RL	Qual Result	RL	Qual Result	RL	Qual Result
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.1	< 0.21	< 0.1	< 0.1
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458	< 0.1	< 0.458	< 0.1	< 0.1
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.1	< 0.426	< 0.1	< 0.1
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.064	< 0.397	< 0.1	< 0.397	< 0.1	< 0.1
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.074	< 0.6	< 0.1	< 0.6	< 0.1	< 0.1
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	NA	< 0.8	NA	NA
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 1.21	< 0.533	NA	< 0.533	NA	NA
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	NA	< 0.682	NA	NA
RDX	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416	0.2	< 0.416	0.2	0.2
Tetryl	< 0.253	< 1.18	< 1.18	NA	0.753	NA	0.753	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-9

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW041**

FIELD ID	Maximum Hit		Frequency	NW041		NW041		NW041		NW041		NW041		NW041		NW041		NW041	
METHOD				UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE				12/10/96	7/13/94	6/10/94	8/31/92	5/30/91	11/29/84										
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Qual
EXPLOSIVES (µg/L)																			
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.425	<	0.449	<	0.21	<	0.1	
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.549	<	0.611	<	0.549	<	0.611	<	0.458	<	0.1	
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.451	<	0.635	<	0.426	<	0.1	
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.26	<	0.0637	<	0.397	<	0.1	
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.26	<	0.0738	<	0.6	<	0.1	
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.244	<	0.158	<	0.8	<	NA	
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	0.563	<	1.21	<	0.533	<	NA	
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.817	<	0.645	<	0.682	<	NA	
RDX	0.676	3/6	<	0.558	<	0.62	<	0.676	<	1.17	<	0.676	<	1.17	<	0.416	<	0.4	
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	NA	<	1.18	<	NA	<	0.631	<	NA	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-10

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW050**

FIELD ID	NW050			NW050			NW050			NW050			NW050			NW050			NW050		
METHOD	Maximum	Frequency		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
COLLECT DATE	Hit			12/9/96	7/16/94	6/12/94	8/31/92	5/30/91	9/11/85	11/29/84											
EXPLOSIVES (µg/L)																					
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21	<	0.449	<	0.21	<	0.449	<	0.1	<
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.549	<	0.611	<	0.458	<	0.611	<	0.458	<	0.611	<	0.1	<
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.635	<	0.426	<	0.635	<	0.1	<
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.064	<	0.397	<	0.064	<	0.397	<	0.064	<	0.1	<
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.074	<	0.6	<	0.074	<	0.6	<	0.074	<	0.1	<
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	0.158	<	0.8	<	0.158	<	NA	<
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<
HMX	-	0/6	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3	<	1.21	<	5.3	<	1.21	<	NA	<
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	<	0.645	<	0.682	<	0.645	<	NA	<
RDX	1.96	3/8	<	0.558	<	0.412	<	0.412	<	1.17	<	1.37	<	1.17	<	1.37	<	1.17	<	1.8	<
Tetryl	-	0/5	<	0.253	<	1.18	<	1.18	<	NA	<	0.631	<	NA	<	0.631	<	NA	<	NA	<

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-11

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW051**

FIELD ID	NW051	NW051	NW051	NW051	NW051	NW051	NW051	NW051	NW051
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	12/9/96	7/16/94	7/16/94	6/12/94	8/31/92	5/30/91			
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	<	0.125	<	0.425	<	0.425	<	0.449	<
1,3-Dinitrobenzene	<	0.989	<	0.549	<	0.549	<	0.611	<
2,4,6-Trinitrotoluene	<	0.29	<	0.451	<	0.451	<	0.635	<
2,4-Dinitrotoluene	<	0.233	<	0.26	<	0.26	<	0.0637	<
2,6-Dinitrotoluene	<	0.2	<	0.26	<	0.26	<	0.0738	<
2-Amino-4,6-Dinitrotoluene	<	0.173	<	0.244	<	0.244	<	0.158	<
2-Nitrotoluene	<	0.319	<	NA	<	NA	<	NA	<
3-Nitrotoluene	<	0.514	<	NA	<	NA	<	NA	<
4-Amino-2,6-Dinitrotoluene	<	0.309	<	NA	<	NA	<	NA	<
4-Nitrotoluene	<	0.368	<	NA	<	NA	<	NA	<
HMX	1.9	0.16	2.49	2.85	5.53	5.53	<	<	5.3
Nitrobenzene	<	0.231	<	0.817	<	0.817	<	0.645	<
RDX	4.12	0.558	U	3.49	3.59	3.59	2.48	0.618	0.618
Tetryl	<	0.253	<	1.18	<	1.18	<	NA	<

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-11

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW051**

FIELD ID	Maximum	Frequency	NW051		NW051		NW051		NW051	
METHOD	Hit		3S	9/12/85	4/16/85	3/15/85	11/29/84	99	99	99
COLLECT DATE			Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<
2,4,6-Trinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<
2,4-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<
2,6-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<
2-Amino-4,6-Dinitrotoluene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
HMX	5.53	4/5	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA
RDX	42.2	9/9	42.2	36	20	29				
Tetryl	-	0/4	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-12

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW052**

FIELD ID	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052	NW052
METHOD	UW51	UW33	UW33	UW33	UW32	UW25	3S	99					
COLLECT DATE	12/9/96	7/16/94	6/11/94	8/31/92	6/3/91	9/10/85	11/29/84						
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.1	< 0.1						
1,3-Dinitrobenzene	< 0.989	0.53	< 0.549	NA	< 0.458	< 0.1	< 0.1						
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	1.48	< 0.1	< 0.1						
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.1	< 0.1						
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 0.1	< 0.1						
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	< 0.1	< 0.1						
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA						
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA						
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA						
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA						
HMX	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3	< 0.1	< 0.1						
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	< 0.1	< 0.1						
RDX	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416	< 8.61	< 8.61						
Tetryl	< 0.253	< 1.18	< 1.18	NA	< 1.33	< 0.1	< 0.1						

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW060**

FIELD ID		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060		NW060
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USAEC Method UW51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW061**

FIELD ID	Maximum Hit	Frequency	NW061 UW51 12/9/96	NW061 UW33 7/15/94	NW061 UW33 6/12/94	NW061 UW32 8/22/92	NW061 UW25 5/30/91	NW061 99 11/29/84
METHOD			Result	Qual	Result	Qual	Result	Qual
COLLECT DATE			Result	Qual	Result	Qual	Result	Qual
EXPLOSIVES (µg/L)								
1,3,5-Trinitrobenzene	-	0/6	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.1
1,3-Dinitrobenzene	0.753	1/6	< 0.989	< 0.549	0.753	< 0.611	< 0.458	< 0.1
2,4,6-Trinitrotoluene	-	0/6	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.1
2,4-Dinitrotoluene	-	0/6	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.1
2,6-Dinitrotoluene	-	0/6	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 0.1
2-Amino-4,6-Dinitrotoluene	-	0/5	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	NA
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA	NA
HMX	-	0/5	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3	NA
Nitrobenzene	-	0/5	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	NA
RDX	0.4	1/6	< 0.558	< 0.412	< 0.412	< 1.17	< 4.2	0.4
Tetryl	-	0/4	< 0.253	< 1.18	< 1.18	NA	< 0.631	NA

USAEC Method UW51

TABLE C-15

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW062**

FIELD ID	NW062			NW062			NW062			NW062			NW062		
METHOD	Frequency	UW51	UW33	UW33	UW33	UW32	UW32	UW32	UW25	UW25	UW25	UW25	UW25	UW25	
COLLECT DATE	Hit	12/9/96	7/15/94	6/12/94	8/22/92	5/30/91	11/29/84	11/29/84	11/29/84	11/29/84	11/29/84	11/29/84	11/29/84	11/29/84	
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	-	<	0.125	<	0.425	<	0.425	<	0.449	<	2.1	<	0.1	<	
1,3-Dinitrobenzene	0.564	<	0.989	0.564	<	0.549	<	0.611	<	4.6	<	0.1	<	<	
2,4,6-Trinitrotoluene	-	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.1	<	
2,4-Dinitrotoluene	-	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<	0.1	<	
2,6-Dinitrotoluene	-	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<	0.1	<	
2-Amino-4,6-Dinitrotoluene	-	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	NA	<	
2-Nitrotoluene	-	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	
3-Nitrotoluene	-	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	
4-Amino-2,6-Dinitrotoluene	-	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	
4-Nitrotoluene	-	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	
HMX	-	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3	<	NA	<	
Nitrobenzene	-	<	0.231	<	0.817	<	0.817	<	0.645	<	6.8	<	NA	<	
RDX	-	<	0.558	<	0.412	<	0.412	<	1.17	<	4.2	<	0.1	<	
Tetryl	1.34	<	0.253	<	1.18	<	1.18	<	NA	<	1.34	<	NA	<	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-16

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW070**

FIELD ID	NW070	NW070	NW070	NW070	NW070	NW070	NW070
METHOD	UW51	UW33	UW33	UW33	UW32	UW25	UW14
COLLECT DATE	2/18/97	7/12/94	6/9/94	8/31/92	5/31/91	10/16/90	
	Result	RL	Qual	Result	RL	Qual	Result
	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)							
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.626	
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458	< 0.519	
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.588	
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.612	
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 1.15	
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	NA	NA
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3	< 1.65	
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	< 1.07	
RDX	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416	< 2.11	
Tetryl	< 0.253	< 1.18	< 1.18	NA	< 0.631	< 0.556	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-16

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW070**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW070 UW14 4/24/90		NW070 UW01 5/15/89		NW070 99 11/29/84	
					Qual Result	RL	Qual Result	RL	Qual Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/8	<	0.626	<	0.56	<	0.1	<	0.1
1,3-Dinitrobenzene	-	0/8	<	0.519	<	0.61	<	0.1	<	0.1
2,4,6-Trinitrotoluene	-	0/8	<	0.588	<	0.78	<	0.1	<	0.1
2,4-Dinitrotoluene	-	0/8	<	0.612	<	0.6	<	0.1	<	0.1
2,6-Dinitrotoluene	-	0/8	<	1.15	<	0.55	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/4	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/7	<	1.65	<	1.3	<	NA	<	NA
Nitrobenzene	-	0/7	<	1.07	<	1.13	<	NA	<	NA
RDX	1.4	1/8	<	2.11	1.4			0.1	<	0.1
Tetryl	-	0/5	<	0.556		NA		NA		NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW/51

TABLE C-17

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW071**

FIELD ID	NW071		NW071		NW071		NW071		NW071		NW071			
METHOD	Frequency	UW51	UW33	UW33	UW33	UW33	UW32	UW33	UW32	UW33	UW25			
COLLECT DATE		2/18/97	7/12/94	6/9/94	8/31/92	7/24/91					6/4/91			
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/10	<	0.125	<	0.425	<	0.425	<	0.449	<	0.425	<	0.21
1,3-Dinitrobenzene	-	0/10	<	0.989	<	0.549	<	0.549	<	0.611	<	0.549	<	0.46
2,4,6-Trinitrotoluene	-	0/10	<	0.29	<	0.451	<	0.451	<	0.635	<	0.451	<	0.43
2,4-Dinitrotoluene	-	0/10	<	0.233	<	0.26	<	0.26	<	0.064	<	0.26	<	0.4
2,6-Dinitrotoluene	2.28	1/10	<	0.2	<	0.26	<	0.26	<	0.074	<	0.26	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.5	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/8	<	0.16	<	0.563	<	0.563	<	1.21	<	0.563	<	5.3
Nitrobenzene	-	0/8	<	0.231	<	0.817	<	0.817	<	0.645	<	0.817	<	0.68
RDX	2.6	3/9	<	0.558	<	0.412	<	0.412	<	1.17	<	0.412	<	NA
Tetryl	0.849	1/6	<	0.253	<	1.18	<	1.18	<	NA	<	1.18	<	0.85

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-17

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW071**

FIELD ID	NW071	NW071	NW071	NW071	NW071	NW071	NW071	NW071	NW071
METHOD	UW14	UW14	UW14	UW14	UW14	UW14	UW14	UW14	UW14
COLLECT DATE	10/16/90	4/24/90	5/15/89	3/15/85	11/29/84				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	< 0.626	< 0.63	< 0.56	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	< 0.519	< 0.52	< 0.61	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trinitrotoluene	< 0.588	< 0.59	< 0.78	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	< 0.612	< 0.61	< 0.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	< 1.15	< 1.15	2.28	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Amino-4,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	< 1.65	< 1.65	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Nitrobenzene	-	< 1.07	< 1.07	< 1.13	< 1.13	< 1.13	< 1.13	< 1.13	< 1.13
RDX	2.6	< 2.11	< 2.11	1.43	1	2.6	2.6	2.6	2.6
Tetryl	0.849	< 0.556	< 0.56	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-18

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW080**

FIELD ID	NW080	NW080	NW080	NW080	NW080	NW080	NW080	NW080	NW080	NW080
METHOD	UW51	UW33	UW33	UW33	UW32	UW25	UW14	UW14	UW14	UW14
COLLECT DATE	12/10/96	7/16/94	6/11/94	9/1/92	5/31/91	10/16/90				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.626				
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458	< 0.519				
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.588				
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.612				
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 1.15				
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	< 1.15				
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA				
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA				
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA				
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA				
HMX	< 0.16	0.732	0.987	3.38	1.15	< 1.65				
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	< 1.07				
RDX	< 0.558	1.88	2.36	3.99	5.31	3.85				
Tetryl	< 0.253	< 1.18	< 1.18	NA	< 0.631	< 0.556				

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-18

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW080**

FIELD ID			NW080		NW080		NW080		NW080		NW080	
METHOD	Maximum Hit	Frequency	UW14	UW01	3S	99	11/29/84	5/15/89	9/10/85	11/29/84	5/15/89	9/10/85
COLLECT DATE	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/10	<	0.626	<	0.56	<	0.1	NA	<	0.1	NA
1,3-Dinitrobenzene	-	0/10	<	0.519	<	0.61	<	0.1	NA	<	0.1	NA
2,4,6-Trinitrotoluene	-	0/10	<	0.588	<	0.78	<	0.1	NA	<	0.1	NA
2,4-Dinitrotoluene	-	0/10	<	0.612	<	0.6	<	0.1	NA	<	0.1	NA
2,6-Dinitrotoluene	0.7	1/10	<	1.15	0.7		<	0.1	NA	<	0.1	NA
2-Amino-4,6-Dinitrotoluene	-	0/6		NA		NA		NA	NA		NA	NA
2-Nitrotoluene	-	0/1		NA		NA		NA	NA		NA	NA
3-Nitrotoluene	-	0/1		NA		NA		NA	NA		NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1		NA		NA		NA	NA		NA	NA
4-Nitrotoluene	-	0/1		NA		NA		NA	NA		NA	NA
HMX	3.38	6/9	<	1.65		1.72		NA	NA		NA	NA
Nitrobenzene	-	0/9	<	1.07		<	1.13		NA		NA	NA
RDX	12.4	9/10	5.46		3.58			12.4				NA
Tetryl	-	0/7	<	0.556		NA		NA	NA		NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-19

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW081**

FIELD ID	NW081	NW081	NW081	NW081	NW081	NW081	NW081	NW081	NW081	NW081
METHOD	UW51	UW33	UW33	UW33	UW32	UW25	UW14	UW14	UW14	UW14
COLLECT DATE	12/10/96	7/16/94	6/11/94	9/1/92	6/3/91	10/16/90				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21	< 0.928				
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458	< 0.519				
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.588				
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.612				
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 1.15				
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.954	< 0.244	< 0.158	< 0.8	NA				
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA				
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA				
4-Amino-2,6-Dinitrotoluene	< 0.309	< 0.704	< 0.704	NA	NA	NA				
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA				
HMX	6.87	6.62	6.87	6.38	4.34	5.65				
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	< 1.07				
RDX	70.7	17	17	18.8	20.7	17				
Tetryl	< 0.253	< 1.18	< 1.18	NA	< 0.77	< 0.556				

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW081**

U - Unconfirmed Result
NA - Not Analyzed
Qual - Qualification
RL - Reporting Limit
Historical reporting limit:
USAEC Method UW51

TABLE C-20

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW082**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW082 UW51 12/10/96 Result	NW082 UW33 7/16/94 RL	NW082 UW33 6/11/94 RL	NW082 UW32 9/1/92 RL	NW082 UW33 7/24/91 RL	NW082 UW25 6/4/91 RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene			1.31	2/11	<	0.425	<	0.449	<	0.21
1,3-Dinitrobenzene			0.547	1/11	<	0.547	<	0.611	<	0.458
2,4,6-Trinitrotoluene			-	0/11	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene			-	0/11	<	0.26	<	0.0637	<	0.397
2,6-Dinitrotoluene			1.1	1/11	<	0.26	<	0.0738	<	0.6
2-Amino-4,6-Dinitrotoluene			-	0/6	<	0.244	<	0.158	<	0.8
2-Nitrotoluene			-	0/1	<	NA	NA	NA	NA	NA
3-Nitrotoluene			-	0/1	<	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	NA	NA	NA	NA	NA
4-Nitrotoluene			-	0/1	<	NA	NA	NA	NA	NA
HMX			2.27	7/9	1.7	2.14	1.81	1.59	<	1.79
Nitrobenzene			-	0/9	<	0.817	<	0.645	<	0.682
RDX			20	9/11	<	3.79	2.48	2.86	4.99	NA
Tetryl			0.949	1/7	<	1.18	<	NA	<	0.949

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-20

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW082**

FIELD ID	NW082	NW082	NW082	NW082	NW082	NW082	NW082	NW082	NW082
METHOD	UW14	UW14	UW14	UW01	3S	99	99	99	99
COLLECT DATE	10/16/90	4/25/90	5/15/89	9/10/85	3/15/85	11/29/84	11/29/84	11/29/84	11/29/84
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (ug/L)									
1,3,5-Trinitrobenzene	1.31	0.984	1.31	< 0.56	NA	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	0.547	< 0.519	< 0.519	< 0.61	NA	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trinitrotoluene	-	< 0.588	< 0.588	< 0.78	NA	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	-	< 0.612	< 0.612	< 0.6	NA	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	1.1	< 1.15	< 1.15	1.1	NA	< 0.1	< 0.1	< 0.1	< 0.1
2-Amino-4,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA
HMX	2.27	< 1.65	2.27	1.86	NA	NA	NA	NA	NA
Nitrobenzene	-	< 1.07	< 1.07	< 1.13	NA	NA	NA	NA	NA
RDX	20	< 2.11	3.94	7.81	15.4	9	20	20	20
Tetryl	0.949	< 0.556	< 0.556	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-21

CORNHUSKER ARMY AMMUNITION PLANT

WELL NW100

FIELD ID	Maximum Hit	Frequency	NW100		NW100		NW100		NW100		NW100	
METHOD			UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE			2/18/97	7/12/94	6/8/94	8/22/92	7/23/91					
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/7	< 0.125	< 0.425	< 0.425	< 0.449	< 0.425	J	< 0.449	< 0.425	< 0.425	< 0.425
1,3-Dinitrobenzene	-	0/7	< 0.989	< 0.549	< 0.549	< 0.611	< 0.549	< 0.549	< 0.611	< 0.549	< 0.549	< 0.549
2,4,6-Trinitrotoluene	-	0/7	< 0.29	< 0.451	< 0.451	< 0.635	< 0.451	J	< 0.635	< 0.451	< 0.451	< 0.451
2,4-Dinitrotoluene	-	0/7	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.26	< 0.0637	< 0.0637	< 0.26	< 0.26	< 0.26
2,6-Dinitrotoluene	-	0/7	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.26	< 0.0738	< 0.0738	< 0.26	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/9	< 0.16	< 0.563	< 0.563	< 1.21	< 0.563	< 1.21	< 1.21	< 0.563	< 0.563	< 0.563
Nitrobenzene	-	0/6	< 0.231	< 0.817	< 0.817	< 0.645	< 0.817	< 0.645	< 0.645	< 0.817	< 0.817	< 0.817
RDX	0.9	1/9	< 0.558	< 0.412	< 0.412	< 1.17	< 0.412	< 1.17	< 1.17	< 0.412	< 0.412	< 0.412
Tetryl	-	0/5	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USABC Method UW51

TABLE C-21

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW100**

FIELD ID	Maximum Hit	Frequency	NW100 UW25 6/1/91	Qual Result	NW100 UW14 10/17/90	Qual Result	NW100 UW14 4/30/90	Qual Result	NW100 UW01 5/17/89	Qual Result	NW100 99 11/29/84
METHOD											
COLLECT DATE											
EXPLOSIVES (µg/L)			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	-	0/7	< 0.21		NA		NA		NA	< 0.1	
1,3-Dinitrobenzene	-	0/7	< 0.458		NA		NA		NA	< 0.1	
2,4,6-Trinitrotoluene	-	0/7	< 0.426		NA		NA		NA	< 0.1	
2,4-Dinitrotoluene	-	0/7	< 0.397		NA		NA		NA	< 0.1	
2,6-Dinitrotoluene	-	0/7	< 0.6		NA		NA		NA	< 0.1	
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.8		NA		NA		NA	NA	NA
2-Nitrotoluene	-	0/1	NA		NA		NA		NA	NA	NA
3-Nitrotoluene	-	0/1	NA		NA		NA		NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA		NA		NA		NA	NA	NA
4-Nitrotoluene	-	0/1	NA		NA		NA		NA	NA	NA
HMX	-	0/9	< 5.3		< 1.65		< 1.65		< 1.3	NA	NA
Nitrobenzene	-	0/6	< 0.682		NA		NA		NA	NA	NA
RDX	0.9	1/9	NA		< 2.11		< 2.11		0.9	< 0.1	NA
Tetryl	-	0/5	< 0.631		NA		NA		NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-22

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW101**

FIELD ID	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101	NW101
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/18/97	7/12/94	6/8/94	8/22/92	7/24/91	6/1/91	7/24/91	8/22/92	7/24/91	6/1/91	7/24/91	8/22/92	7/24/91
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244
2-Nitrotoluene	< 0.319	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514
3-Nitrotoluene	< 0.309	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368
4-Amino-2,6-Dinitrotoluene	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563
4-Nitrotoluene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817
HMX	< 0.558	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18
Nitrobenzene	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18
RDX	< 0.5	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18
Tetryl	< 0.631	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-22

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW101**

FIELD ID	NW101		NW101		NW101		NW101		NW101		NW101	
METHOD	Maximum	Frequency	UW14	UW14	UW14	UW14	UW01	UW01	UW01	UW01	99	99
COLLECT DATE	Hit		10/17/90	4/30/90	5/17/89	11/29/84						
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	<	0.1					
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1					
2,4,6-Trinitrobenzene	-	0/7	NA	NA	NA	<	0.1					
2,4-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1					
2,6-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1					
2-Amino-4,6-Dinitrobenzene	-	0/6	NA	NA	NA		NA	NA	NA	NA	NA	NA
2-Nitrobenzene	-	0/1	NA	NA	NA		NA	NA	NA	NA	NA	NA
3-Nitrobenzene	-	0/1	NA	NA	NA		NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrobenzene	-	0/1	NA	NA	NA		NA	NA	NA	NA	NA	NA
4-Nitrobenzene	-	0/1	NA	NA	NA		NA	NA	NA	NA	NA	NA
HMX	3.15	1/9	<	1.65	<	3.15						
Nitrobenzene	-	0/6	NA	NA	NA							
RDX	2	2/9	<	2.11	<	1.29	2					
Tetryl	-	0/5	NA	NA	NA							

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-23

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW102**

FIELD ID	NW102	NW102	NW102	NW102	NW102	NW102	NW102	NW102	NW102
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/18/97	7/12/94	6/8/94	8/22/92	6/3/91				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244
2-Nitrotoluene	< 0.319	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514	< 0.514
3-Nitrotoluene	< 0.309	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368	< 0.368
4-Amino-2,6-Dinitrotoluene	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563
4-Nitrotoluene	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563
HMX	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817
Nitrobenzene	< 0.558	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18
RDX	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-23

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW102**

FIELD ID	NW102	NW102	NW102	NW102	NW102
METHOD	UW14	UW14	UW14	UW01	99
COLLECT DATE	10/17/90	4/30/90	5/17/89	11/29/84	
	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL
1,3,5-Trinitrobenzene	-	0/7	NA	NA	< 0.1
1,3-Dinitrobenzene	-	0/7	NA	NA	< 0.1
2,4,6-Trinitrotoluene	-	0/7	NA	NA	< 0.1
2,4-Dinitrotoluene	-	0/7	NA	NA	< 0.1
2,6-Dinitrotoluene	-	0/7	NA	NA	< 0.1
2-Amino-4,6-Dinitrotoluene	-	0/6	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA
HMX	-	0/9	< 1.65	< 1.3	NA
Nitrobenzene	-	0/6	NA	NA	NA
RDX	1.77	2/10	< 2.11	1.77	0.2
Tetryl	-	0/5	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USABC Method UW51

TABLE C-24

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW120**

FIELD ID	NW120	NW120	NW120	NW120	NW120	NW120
METHOD	UW14	UW01	3S	99	11/29/84	
COLLECT DATE	5/1/90	5/24/89	9/10/85			
	Qual Result	RL	Qual Result	RL	Qual Result	RL
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	NA	NA	NA	NA	<	0.1
1,3-Dinitrobenzene	NA	NA	NA	NA	<	0.1
2,4,6-Trinitrotoluene	NA	NA	NA	NA	<	0.1
2,4-Dinitrotoluene	NA	NA	NA	NA	<	0.1
2,6-Dinitrotoluene	NA	NA	NA	NA	<	0.1
2-Amino-4,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA
HMX	< 1.65	< 1.3	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA
RDX	< 2.11	< 0.63	< 8.61	0.2		
Tetryl	NA	NA	NA	NA		

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW121**

U - Unconfirmed Result
NA - Not Analyzed
Qual - Qualification
RRL - Reporting Limit
Historical reporting limits
USAE Method UW51

TABLE C-25

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW121**

FIELD ID	NW121	NW121	NW121	NW121	NW121	NW121
METHOD	UW14	UW14	UW01	UW01	UW01	UW01
COLLECT DATE	10/18/90	5/1/90	5/24/89	5/24/89	9/10/85	11/29/84
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	-	0/8	NA	NA	NA	NA
1,3-Dinitrobenzene	-	0/8	NA	NA	NA	NA
2,4,6-Trinitrotoluene	-	0/8	NA	NA	NA	NA
2,4-Dinitrotoluene	-	0/8	NA	NA	NA	NA
2,6-Dinitrotoluene	-	0/8	NA	NA	NA	NA
2-Amino-4,6-Dinitrotoluene	-	0/7	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA
HMX	0.7	1/10	< 1.65	< 1.65	< 1.3	NA
Nitrobenzene	-	0/7	NA	NA	NA	NA
RDX	0.954	0/11	< 2.11	< 2.11	< 0.63	< 0.1
Tetryl	-	1/5	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-26

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW122**

FIELD ID	Method	Collect Date	Maximum Hit	Frequency	NW122 UW51 12/12/96	NW122 UW33 7/13/94	NW122 UW33 6/11/94	NW122 UW32 9/2/92	NW122 UW33 7/23/91	NW122 UW25 6/2/91
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.449	<	0.21
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.611	<	0.458
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.064	<	0.397
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.074	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.158	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA
HMX	-	0/9	<	0.16	<	0.563	<	1.21	<	0.533
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.645	<	0.682
RDX	1.9	2/10	<	0.558	<	0.412	<	1.17	<	NA
Tetryl	0.756	1/5	<	0.253	<	1.18	<	NA	<	0.756

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-26

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW122**

FIELD ID	NW122		NW122		NW122		NW122		NW122	
METHOD	UW14	UW14	UW01	UW14	UW01	UW14	UW01	UW14	UW01	
COLLECT DATE	10/18/90	5/1/90	5/24/89	5/1/90	5/24/89	9/10/85	5/1/90	11/29/84	9/10/85	
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	NA	NA	NA	NA	
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	NA	NA	NA	NA	
2,4,6-Trinitrotoluene	-	0/7	NA	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	-	0/7	NA	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	-	0/7	NA	NA	NA	NA	NA	NA	NA	
2-Amino-4,6-Dinitrotoluene	-	0/6	NA	NA	NA	NA	NA	NA	NA	
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	
HMX	-	0/9	< 1.65	< 1.65	< 1.3	NA	NA	NA	NA	
Nitrobenzene	-	0/6	NA	NA	NA	NA	NA	NA	NA	
RDX	1.9	2/10	< 2.11	< 2.11	1.9	< 8.61	0.2	NA	NA	
Tetryl	0.756	1/5	NA	NA	NA	NA	NA	NA	NA	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-27

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW130**

FIELD ID	Maximum Hit	Frequency	NW130		NW130		NW130		NW130		NW130		NW130		NW130	
METHOD			UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE			2/19/97	7/16/94	6/9/94	9/3/92	5/31/91									
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	-	0/6	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21									
1,3-Dinitrobenzene	-	0/6	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458									
2,4,6-Trinitrotoluene	-	0/6	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426									
2,4-Dinitrotoluene	-	0/6	< 0.233	< 0.26	< 0.26	< 0.064	< 0.397									
2,6-Dinitrotoluene	-	0/6	< 0.2	< 0.26	< 0.26	< 0.074	< 0.6									
2-Amino-4,6-Dinitrotoluene	-	0/5	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8									
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA									
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA									
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA									
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA									
HMX	-	0/8	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3									
Nitrobenzene	-	0/5	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682									
RDX	1.05	2/9	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416									
Tetryl	-	0/4	< 0.253	< 1.18	< 1.18	NA	< 0.631									

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW130**

U - Unconfirmed Result
N/A - Not Analyzed
Qual - Qualification
RL - Reporting Limit
Historical reporting limits were not available
USAE Method UW51

TABLE C-28

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW131**

FIELD ID	NW131	NW131	NW131	NW131	NW131	NW131	NW131	NW131	NW131
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/19/97	7/16/94	7/16/94	6/9/94	9/3/92	7/24/91			
	Maximum	Frequency	Hit	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	-	0/7		< 0.125	< 0.425	< 0.425	< 0.449	< 0.425	< 0.425
1,3-Dinitrobenzene	-	0/7		< 0.989	< 0.549	< 0.549	< 0.611	< 0.549	< 0.549
2,4,6-Trinitrotoluene	-	0/7		< 0.29	< 0.451	< 0.451	< 0.635	< 0.451	< 0.451
2,4-Dinitrotoluene	-	0/7		< 0.233	< 0.26	< 0.26	< 0.0637	< 0.26	< 0.26
2,6-Dinitrotoluene	-	0/7		< 0.2	< 0.26	< 0.26	< 0.0738	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	-	0/6		< 0.173	< 0.244	< 0.244	< 0.158	< 0.5	< 0.5
2-Nitrotoluene	-	0/1		< 0.319	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1		< 0.514	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1		< 0.309	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1		< 0.368	NA	NA	NA	NA	NA
HMX	-	0/9		< 0.16	< 0.563	< 0.563	< 1.21	< 0.563	< 0.563
Nitrobenzene	-	0/6		< 0.231	< 0.817	< 0.817	< 0.645	< 0.817	< 0.817
RDX	0.4	1/9		< 0.558	< 0.412	< 0.412	< 1.17	< 0.412	< 0.412
Tetryl	-	0/5		< 0.253	< 1.18	< 1.18	NA	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-28

CORNHUSKER ARMY AMMUNITION PLANT

WELL NW131

FIELD ID	NW131	NW131	NW131	NW131	NW131	NW131
METHOD	UW25	UW14	UW14	UW14	UW01	99
COLLECT DATE	6/2/91	10/17/90	4/30/90	5/24/89	11/29/84	
	Maximum	Frequency	Hit	Result	RL	Qual
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	< 0.21	0/7	-	NA	NA	< 0.1
1,3-Dinitrobenzene	< 0.458	0/7	-	NA	NA	< 0.1
2,4,6-Trinitrotoluene	< 0.426	0/7	-	NA	NA	< 0.1
2,4-Dinitrotoluene	< 0.397	0/7	-	NA	NA	< 0.1
2,6-Dinitrotoluene	< 0.6	0/7	-	NA	NA	< 0.1
2-Amino-4,6-Dinitrotoluene	< 0.8	0/6	-	NA	NA	NA
2-Nitrotoluene	NA	0/1	-	NA	NA	NA
3-Nitrotoluene	NA	0/1	-	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	NA	0/1	-	NA	NA	NA
4-Nitrotoluene	NA	0/1	-	NA	NA	NA
HMX	< 5.3	0/9	-	< 1.65	< 1.3	NA
Nitrobenzene	< 0.682	0/6	-	NA	NA	NA
RDX	NA	1/9	0.4	< 2.11	< 0.63	0.4
Tetryl	< 0.631	0/5	-	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-29

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW132**

FIELD ID	Maximum Hit	Frequency	NW132		NW132		NW132		NW132		NW132		NW132	
METHOD			UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE			2/19/97	7/16/94	6/9/94	9/3/92	6/3/91							
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/8	< 0.125	< 0.425	< 0.425	< 0.449	< 0.21							
1,3-Dinitrobenzene	-	0/8	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458							
2,4,6-Trinitrotoluene	-	0/8	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426							
2,4-Dinitrotoluene	-	0/8	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397							
2,6-Dinitrotoluene	-	0/8	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6							
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8							
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA							
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA							
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA							
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA							
HMX	-	0/9	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3							
Nitrobenzene	-	0/6	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682							
RDX	2.4	2/11	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416							
Tetryl	-	0/4	< 0.253	< 1.18	< 1.18	NA	< 0.874							

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-29

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW132**

FIELD ID	NW132			NW132			NW132			NW132		
METHOD	Frequency	Maximum	Hit	UW14	UW14	UW01	UW14	UW01	UW14	UW01	UW14	
COLLECT DATE				10/17/90	4/30/90	5/24/89	4/30/90	5/24/89	3/15/85	11/29/84		
				Result	RL	Qual	Result	RL	Qual	Result	RL	
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	0/8	-		NA	NA	NA	NA	NA	< 0.1	< 0.1	NA	
1,3-Dinitrobenzene	0/8	-		NA	NA	NA	NA	NA	< 0.1	< 0.1	NA	
2,4,6-Trinitrotoluene	0/8	-		NA	NA	NA	NA	NA	< 0.1	< 0.1	NA	
2,4-Dinitrotoluene	0/8	-		NA	NA	NA	NA	NA	< 0.1	< 0.1	NA	
2,6-Dinitrotoluene	0/8	-		NA	NA	NA	NA	NA	< 0.1	< 0.1	NA	
2-Amino-4,6-Dinitrotoluene	0/6	-		NA	NA	NA	NA	NA	NA	NA	NA	
2-Nitrotoluene	0/1	-		NA	NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	0/1	-		NA	NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	0/1	-		NA	NA	NA	NA	NA	NA	NA	NA	
4-Nitrotoluene	0/1	-		NA	NA	NA	NA	NA	NA	NA	NA	
HMX	0/9	-		< 1.65	< 1.65	< 1.3			NA	NA	NA	
Nitrobenzene	0/6	-		NA	NA	NA	NA	NA	NA	NA	NA	
RDX	2/11	2.4		< 2.11	< 2.11	< 0.63			1.4	2.4	NA	
Tetryl	0/4	-		NA	NA	NA	NA	NA	NA	NA	NA	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-30

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA210**

FIELD ID	CA210	CA210	CA210	CA210	CA210	CA210	CA210
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	12/10/96	7/16/94	6/13/94	10/8/92	9/1/92	9/1/92	9/1/92
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	-	0/5	<	0.125	<	0.425	<
1,3-Dinitrobenzene	-	0/5	<	0.989	<	0.549	<
2,4,6-Trinitrotoluene	-	0/5	<	0.29	<	0.451	<
2,4-Dinitrotoluene	-	0/5	<	0.233	<	0.26	<
2,6-Dinitrotoluene	-	0/5	<	0.2	<	0.26	<
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<
2-Nitrotoluene	-	0/1	<	0.319	<	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/3	<	0.309	<	0.414	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	NA
HMX	2.74	3/5	<	0.41	<	0.563	<
Nitrobenzene	-	0/5	<	0.231	<	0.817	<
RDX	2.64	4/5	<	0.558	<	0.903	<
Tetryl	-	0/3	<	0.253	<	1.18	<

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-31

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA211**

FIELD ID	CA211	CA211	CA211	CA211	CA211	CA211	CA211
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	12/10/96	7/16/94	6/13/94	10/8/92	9/4/92	9/4/92	9/4/92
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	RL	Qual	Result	RL	Qual	Result	RL
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449	< 0.449
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	1.03	< 0.611	< 0.611	< 0.611
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.0637	< 0.0637	< 0.0637
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.0738	< 0.0738	< 0.0738
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA
HMX	2.78	1.8	0.16	2.38	2.47	2.78	2.45
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645
RDX	5.12	< 0.558	2.88	3.9	5.12	4.21	4.21
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-35

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA251**

FIELD ID	CA251	CA251	CA251	CA251	CA251	CA251	CA251	CA251	CA251
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32	UW32	UW32
COLLECT DATE	12/15/96	7/15/94	6/10/94	10/8/92	9/4/92				
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	0.31	0.31	0.125	<	0.425	<	0.425	<	0.449
1,3-Dinitrobenzene	-	<	0.989	<	0.549	<	0.549	<	0.611
2,4,6-Trinitrotoluene	-	<	0.29	<	0.451	<	0.451	<	0.635
2,4-Dinitrotoluene	-	<	0.233	<	0.26	<	0.26	<	0.0637
2,6-Dinitrotoluene	-	<	0.2	<	0.26	<	0.26	<	0.0738
2-Amino-4,6-Dinitrotoluene	-	<	0.173	<	0.244	<	0.244	<	0.158
2-Nitrotoluene	-	<	0.319	<	NA	<	NA	<	NA
3-Nitrotoluene	-	<	0.514	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	<	0.309	<	NA	<	NA	<	NA
4-Nitrotoluene	-	<	0.368	<	NA	<	NA	<	NA
HMX	6.27	3.65	0.16	5.8	6.27	2.95	4.49		
Nitrobenzene	-	<	0.231	<	0.817	<	0.645	<	0.645
RDX	28	13.6	0.558	28	25	19.7	21		
Tetryl	-	<	0.253	<	1.18	<	1.18	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-36

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA252**

FIELD ID	CA252	CA252	CA252	CA252	CA252	CA252	CA252
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	12/15/96	7/16/94	7/16/94	6/22/94	10/8/92	10/8/92	9/7/92
Maximum Hit	Frequency	Result	RL	Qual Result	RL	Qual Result	RL
EXPLOSIVES (µg/L)							
1,3,5-Trinitrobenzene	0/6	<	0.125	<	0.425	<	0.449
1,3-Dinitrobenzene	0/6	<	0.989	<	0.549	<	0.611
2,4,6-Trinitrotoluene	0/6	<	0.29	<	0.451	<	0.635
2,4-Dinitrotoluene	0/6	<	0.233	<	0.26	<	0.0637
2,6-Dinitrotoluene	0/6	<	0.2	<	0.26	<	0.0738
2-Amino-4,6-Dinitrotoluene	0/7	<	0.173	<	0.244	<	0.158
2-Nitrotoluene	0/1	<	0.319	<	NA	<	NA
3-Nitrotoluene	0/1	<	0.514	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	0/3	<	0.309	<	0.704	<	NA
4-Nitrotoluene	0/1	<	0.368	<	NA	<	NA
HMX	5.59	4.6	0.16	4.81	2.92	5.59	5.42
Nitrobenzene	-	<	0.231	<	0.817	<	<
RDX	19.4	7.2	0.558	6.44	4.55	19.4	17.1
Tetryl	-	<	0.253	<	1.18	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-37

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA253**

FIELD ID	CA253	CA253	CA253	CA253	CA253	CA253
METHOD	UW51	UW33	UW33	UW33	UW32	UW32
COLLECT DATE	2/18/97	7/16/94	6/9/94	10/9/92	9/7/92	9/7/92
	Result	RL	Qual	Result	RL	Qual
Maximum	Frequency	Hit				
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	0/5	< 0.125	< 0.425	< 0.425	< 0.449	< 0.449
1,3-Dinitrobenzene	0/5	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611
2,4,6-Trinitrotoluene	0/5	< 0.29	< 0.451	< 0.451	< 0.635	< 0.635
2,4-Dinitrotoluene	0/5	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.064
2,6-Dinitrotoluene	0/5	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.074
2-Amino-4,6-Dinitrotoluene	0/5	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158
2-Nitrotoluene	0/1	< 0.319	NA	NA	NA	NA
3-Nitrotoluene	0/1	< 0.514	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	< 0.309	NA	NA	NA	NA
4-Nitrotoluene	0/1	< 0.368	NA	NA	NA	NA
HMX	0/5	< 0.16	< 0.563	< 0.563	< 1.21	< 1.21
Nitrobenzene	0/5	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645
RDX	0/5	< 0.558	< 0.412	< 0.412	< 1.17	< 1.17
Tetryl	0/3	< 0.253	< 1.18	< 1.18	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-38

CORNHUSKER ARMY AMMUNITION PLANT

WELL CA270

FIELD ID	CA270	CA270	CA270	CA270	CA270	CA270	CA270
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	2/18/97	7/14/94	6/21/94	10/6/92	9/4/92		
	Maximum	Frequency	Hit	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449	< 0.449
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611	< 0.611
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.0637	< 0.0637	< 0.0637
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.0738	< 0.0738	< 0.0738
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 0.563	< 1.21	< 1.21	< 1.21
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645
RDX	2.79	2.62	2.79	2.79	< 1.17	< 1.17	< 1.17
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-39

CORNHUSKER ARMY AMMUNITION PLANT

WELL CA271

FIELD ID	CA271	CA271	CA271	CA271	CA271	CA271	CA271	CA271	CA271
METHOD	UW51	UW33	UW33	UW33	UW33	UW33	UW33	UW33	UW33
COLLECT DATE	2/18/97	7/14/94	6/21/94	10/6/92	9/4/92				
Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	-	0/5	<	0.125	<	0.425	<	0.425	<
1,3-Dinitrobenzene	-	0/5	<	0.989	<	0.549	<	0.549	<
2,4,6-Trinitrotoluene	-	0/5	<	0.29	<	0.451	<	0.451	<
2,4-Dinitrotoluene	-	0/5	<	0.233	<	0.26	<	0.26	<
2,6-Dinitrotoluene	-	0/5	<	0.2	<	0.26	<	0.26	<
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<
2-Nitrotoluene	-	0/1	<	0.319		NA		NA	
3-Nitrotoluene	-	0/1	<	0.514		NA		NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309		NA		NA	
4-Nitrotoluene	-	0/1	<	0.368		NA		NA	
HMX	1.32	1/5	1.32	0.16	<	0.563	<	0.563	<
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<
RDX	8.12	5/5	8.12	0.558	3.44	3.02	1.94	2.29	
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-40

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA272**

FIELD ID	CA272	CA272	CA272	CA272	CA272	CA272	CA272
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	2/18/97	7/15/94	6/21/94	10/6/92	9/4/92		
	Maximum	Frequency	Hit	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449	< 0.449
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611	< 0.611
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.064	< 0.064	< 0.064
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.074	< 0.074	< 0.074
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	< 0.704	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA
HMX	2.1	1.57	0.16	0.791	0.72	< 1.21	< 1.21
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645
RDX	15	6.29	0.558	15	13	7.41	6.95
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-41

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA273**

FIELD ID	CA273	CA273	CA273	CA273	CA273	CA273
METHOD	UW51	UW33	UW33	UW33	UW32	UW32
COLLECT DATE	2/18/97	7/15/94	6/9/94	10/6/92	9/7/92	9/7/92
	Result	RL	Qual	Result	RL	Qual
Maximum	Frequency	Hit	Result	RL	Qual	Result
Hit	Frequency	Hit	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.449	< 0.449	< 0.449
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611	< 0.611
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.064	< 0.064	< 0.064
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.074	< 0.074	< 0.074
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 1.21	< 1.21	< 1.21
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645
RDX	< 0.558	< 0.412	< 0.412	< 1.17	< 1.17	< 1.17
Tetryl	< 0.253	< 1.18	< 1.18	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-42

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA290

FIELD ID	CA290	CA290	CA290	CA290	CA290	CA290
METHOD	UW51	UW33	UW33	UW33	UW32	UW32
COLLECT DATE	2/19/97	7/12/94	6/8/94	10/5/92	9/6/92	9/6/92
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.064	< 0.064
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.074	< 0.074
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 0.563	< 1.21	< 1.21
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645
RDX	< 0.558	< 0.412	< 0.412	< 0.412	< 1.17	< 1.17
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-43

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA291**

FIELD ID	CA291	CA291	CA291	CA291	CA291	CA291	CA291
METHOD	UW51	UW33	UW33	UW32	UW32	UW32	UW32
COLLECT DATE	2/19/97	7/12/94	6/8/94	10/5/92	10/5/92	10/5/92	9/6/92
Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)							
1,3,5-Trinitrobenzene	0/5	< 0.125	< 0.425	< 0.425	J	< 0.449	< 0.449
1,3-Dinitrobenzene	0/5	< 0.989	< 0.549	< 0.549		< 0.611	< 0.611
2,4,6-Trinitrotoluene	0/5	< 0.29	< 0.451	< 0.451	J	< 0.635	< 0.635
2,4-Dinitrotoluene	0/5	< 0.233	< 0.26	< 0.26		< 0.064	< 0.064
2,6-Dinitrotoluene	0/5	< 0.2	< 0.26	< 0.26		< 0.074	< 0.074
2-Amino-4,6-Dinitrotoluene	0/5	< 0.173	< 0.244	< 0.244		< 0.158	< 0.158
2-Nitrotoluene	0/1	< 0.319	NA	NA		NA	NA
3-Nitrotoluene	0/1	< 0.514	NA	NA		NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	< 0.309	NA	NA		NA	NA
4-Nitrotoluene	0/1	< 0.368	NA	NA		NA	NA
HMX	0/5	< 0.16	< 0.563	< 0.563		< 1.21	< 1.21
Nitrobenzene	0/5	< 0.231	< 0.817	< 0.817		< 0.645	< 0.645
RDX	1/5	< 0.558	0.737	< 0.412		< 1.17	< 1.17
Tetryl	0/3	< 0.253	< 1.18	< 1.18		NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-44

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA292**

FIELD ID	CA292	CA292	CA292	CA292	CA292	CA292	CA292
METHOD	UW51	UW33	UW33	UW32	UW32	UW32	UW32
COLLECT DATE	2/19/97	7/12/94	6/8/94	10/5/92	10/5/92	9/6/92	9/6/92
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425
1,3-Dinitrobenzene	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549
2,4,6-Trinitrotoluene	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451
2,4-Dinitrotoluene	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2,6-Dinitrotoluene	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244
2-Nitrotoluene	< 0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	< 0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	< 0.309	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	< 0.368	NA	NA	NA	NA	NA	NA
HMX	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563
Nitrobenzene	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817
RDX	5.85	5.85	5.85	5.85	5.85	5.85	5.85
Tetryl	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-45

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA310**

FIELD ID	CA310	CA310	CA310	CA310	CA310	CA310
METHOD	UW51	UW33	UW33	UW33	UW32	UW32
COLLECT DATE	2/18/97	7/12/94	6/8/94	10/7/92	9/7/92	9/7/92
	Result	RL	Qual	Result	RL	Qual
Maximum	Frequency	Hit				
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	0/5	< 0.125	<	0.425	<	0.449
1,3-Dinitrobenzene	0/5	< 0.989	<	0.549	<	0.611
2,4,6-Trinitrotoluene	0/5	< 0.29	<	0.451	<	0.635
2,4-Dinitrotoluene	0/5	< 0.233	<	0.26	<	0.064
2,6-Dinitrotoluene	0/5	< 0.2	<	0.26	<	0.074
2-Amino-4,6-Dinitrotoluene	0/5	< 0.173	<	0.244	<	0.158
2-Nitrotoluene	0/1	< 0.319	<	NA	NA	NA
3-Nitrotoluene	0/1	< 0.514	<	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	< 0.309	<	NA	NA	NA
4-Nitrotoluene	0/1	< 0.368	<	NA	NA	NA
HMX	0/5	< 0.16	<	0.563	<	1.21
Nitrobenzene	0/5	< 0.231	<	0.817	<	0.645
RDX	1.1	< 0.558	<	0.412	1.1	<
Tetryl	0/3	< 0.253	<	1.18	<	1.17
					NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-46

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA311**

FIELD ID	CA311	CA311	CA311	CA311	CA311	CA311	CA311
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	2/18/97	7/12/94	6/8/94	10/9/92	9/7/92		
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Frequency	Hit	Maximum	Frequency	Hit	Maximum	Frequency
1,3,5-Trinitrobenzene	0/5	-	-	0/5	-	-	0/5
1,3-Dinitrobenzene	0/5	-	-	0/5	-	-	0/5
2,4,6-Trinitrotoluene	0/5	-	-	0/5	-	-	0/5
2,4-Dinitrotoluene	0/5	-	-	0/5	-	-	0/5
2,6-Dinitrotoluene	0/5	-	-	0/5	-	-	0/5
2-Amino-4,6-Dinitrotoluene	0/5	-	-	0/5	-	-	0/5
2-Nitrotoluene	0/1	-	-	0/1	-	-	0/1
3-Nitrotoluene	0/1	-	-	0/1	-	-	0/1
4-Amino-2,6-Dinitrotoluene	0/1	-	-	0/1	-	-	0/1
4-Nitrotoluene	0/1	-	-	0/1	-	-	0/1
HMX	0/5	-	-	0/5	-	-	0/5
Nitrobenzene	0/5	-	-	0/5	-	-	0/5
RDX	2/5	1.14	1.14	2/5	1.14	1.14	2/5
Tetryl	0/3	-	-	0/3	-	-	0/3

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-47

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA312**

FIELD ID	CA312	CA312	CA312	CA312	CA312	CA312	CA312
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	2/18/97	7/12/94	6/8/94	10/7/92	9/7/92	9/7/92	9/7/92
	Maximum	Frequency	Hit	Result	RL	Qual	Result
EXPLOSIVES (ug/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	0.127	0.127	0.125	<	0.425	<	0.449
1,3-Dinitrobenzene	-	<	0.989	<	0.549	<	0.611
2,4,6-Trinitrotoluene	-	<	0.29	<	0.451	<	0.635
2,4-Dinitrotoluene	-	<	0.233	<	0.26	<	0.0637
2,6-Dinitrotoluene	-	<	0.2	<	0.26	<	0.074
2-Amino-4,6-Dinitrotoluene	-	<	0.173	<	0.244	<	0.158
2-Nitrotoluene	-	<	0.319	NA	NA	NA	NA
3-Nitrotoluene	-	<	0.514	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	<	0.309	<	0.414	<	0.704
4-Nitrotoluene	-	<	0.368	NA	NA	NA	NA
HMX	-	<	0.16	<	0.563	<	1.21
Nitrobenzene	-	<	0.231	<	0.817	<	0.645
RDX	4.41	4.09	0.558	4.41	3.76	2.06	2.06
Tetryl	-	<	0.253	<	1.18	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAECE Method UW51

TABLE C-48

CORNHUSKER ARMY AMMUNITION PLANT

WELL CA313

FIELD ID	CA313	CA313	CA313	CA313	CA313	CA313	CA313
METHOD	UW51	UW33	UW33	UW33	UW32	UW32	UW32
COLLECT DATE	12/12/96	7/14/94	6/9/94	10/7/92	10/7/92	10/7/92	9/7/92
	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result
1,3,5-Trinitrobenzene	<	0.125	<	0.425	<	0.425	<
1,3-Dinitrobenzene	<	0.989	<	0.549	<	0.549	<
2,4,6-Trinitrotoluene	<	0.29	<	0.451	<	0.451	<
2,4-Dinitrotoluene	<	0.233	<	0.26	<	0.26	<
2,6-Dinitrotoluene	<	0.2	<	0.26	<	0.26	<
2-Amino-4,6-Dinitrotoluene	<	0.173	<	0.244	<	0.244	<
2-Nitrotoluene	<	0.319	<	NA	NA	NA	NA
3-Nitrotoluene	<	0.514	<	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	<	0.309	<	NA	NA	NA	NA
4-Nitrotoluene	<	0.368	<	NA	NA	NA	NA
HMX	<	0.16	<	0.563	<	0.563	<
Nitrobenzene	<	0.231	<	0.817	<	0.817	<
RDX	<	0.558	<	0.412	<	0.412	<
Tetryl	<	0.253	<	1.18	<	1.18	<

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-49

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA322**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA322		CA322		CA322	
					UW51	12/12/96	UW33	8/24/94	UW33	7/13/94
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/3	<	0.125	<	0.425	<	0.425	<	0.425
1,3-Dinitrobenzene	-	0/3	<	0.989	<	0.549	<	0.549	<	0.549
2,4,6-Trinitrotoluene	-	0/3	<	0.29	<	0.451	<	0.451	<	0.451
2,4-Dinitrotoluene	-	0/3	<	0.233	<	0.26	<	0.26	<	0.26
2,6-Dinitrotoluene	-	0/3	<	0.2	<	0.26	<	0.26	<	0.26
2-Amino-4,6-Dinitrotoluene	-	0/3	<	0.173	<	0.244	<	0.244	<	0.244
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA
HMX	-	0/3	<	0.16	<	0.563	<	0.563	<	0.563
Nitrobenzene	-	0/3	<	0.231	<	0.817	<	0.817	<	0.817
RDX	-	0/3	<	0.558	<	0.412	<	0.412	<	0.412
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-50

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA332**

FIELD ID	CA332	CA332	CA332	CA332	CA332
METHOD	UW51	UW33	UW33	UW33	UW33
COLLECT DATE	12/12/96	7/16/94	7/16/94	6/23/94	6/23/94
Maximum Hit	Frequency	Result	RL	Qual	Result
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL
1,3,5-Trinitrobenzene	0/3	< 0.125	<	0.425	< 0.425
1,3-Dinitrobenzene	0/3	< 0.989	<	0.549	< 0.549
2,4,6-Trinitrotoluene	0/3	< 0.29	<	0.451	< 0.451
2,4-Dinitrotoluene	0/3	< 0.233	<	0.26	< 0.26
2,6-Dinitrotoluene	0/3	< 0.2	<	0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	0/3	< 0.173	<	0.244	< 0.244
2-Nitrotoluene	0/1	< 0.319	<	NA	NA
3-Nitrotoluene	0/1	< 0.514	<	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	< 0.309	<	NA	NA
4-Nitrotoluene	0/1	< 0.368	<	NA	NA
HMX	0/3	< 0.16	<	0.563	< 0.563
Nitrobenzene	0/3	< 0.231	<	0.817	< 0.817
RDX	0/3	< 0.558	<	0.412	< 0.412
Tetryl	0/3	< 0.253	<	1.18	< 1.18

RL - Reporting Limit (historical reporting limits were not available)

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-51

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA342**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA342 UW51 12/12/96		CA342 UW33 7/15/94		CA342 UW33 6/24/94	
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-		0/3	<	0.125		<	0.425		< 0.425
1,3-Dinitrobenzene	-		0/3	<	0.989		<	0.549		< 0.549
2,4,6-Trinitrotoluene	-		0/3	<	0.29		<	0.451		< 0.451
2,4-Dinitrotoluene	-		0/3	<	0.233		<	0.26		< 0.26
2,6-Dinitrotoluene	-		0/3	<	0.2		<	0.26		< 0.26
2-Amino-4,6-Dinitrotoluene	-		0/3	<	0.173		<	0.244		< 0.244
2-Nitrotoluene	-		0/1	<	0.319		<	NA		NA
3-Nitrotoluene	-		0/1	<	0.514		<	NA		NA
4-Amino-2,6-Dinitrotoluene	-		0/1	<	0.309		<	NA		NA
4-Nitrotoluene	-		0/1	<	0.368		<	NA		NA
HMX	-		0/3	<	0.16		<	0.563		< 0.563
Nitrobenzene	-		0/3	<	0.231		<	0.817		< 0.817
RDX	1.07		2/3	<	0.558		<	1.07		0.603
Tetryl	-		0/3	<	0.253		<	1.18		< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-52

**CORNHUSKER ARMY AMMUNITION PLANT
WELL CA343**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA343 UW51 12/12/96	CA343 UW33 8/24/94	CA343 UW33 7/15/94			
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
	1,3,5-Trinitrobenzene		-	0/3	<	0.125	<	0.425	<	0.425
	1,3-Dinitrobenzene		-	0/3	<	0.989	<	0.549	<	0.549
	2,4,6-Trinitrotoluene		-	0/3	<	0.29	<	0.451	<	0.451
	2,4-Dinitrotoluene		-	0/3	<	0.233	<	0.26	<	0.26
	2,6-Dinitrotoluene		-	0/3	<	0.2	<	0.26	<	0.26
	2-Amino-4,6-Dinitrotoluene		-	0/3	<	0.173	<	0.244	<	0.244
	2-Nitrotoluene		-	0/1	<	0.319	<	NA	NA	NA
	3-Nitrotoluene		-	0/1	<	0.514	<	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		-	0/1	<	0.309	<	NA	NA	NA
	4-Nitrotoluene		-	0/1	<	0.368	<	NA	NA	NA
	HMX		-	0/3	<	0.16	<	0.563	<	0.563
	Nitrobenzene		-	0/3	<	0.231	<	0.817	<	0.817
	RDX		-	0/3	<	0.558	<	0.412	<	0.412
	Tetryl		-	0/3	<	0.253	<	1.18	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-53

**CORNHUSKER ARMY AMMUNITION PLANT
WELL WB1 AND WB2**

FIELD ID	WB1		WB2	
METHOD	Maximum	Frequency	UW51	UW51
COLLECT DATE	Hit		11/18/96	11/18/96
			Result	RL
EXPLOSIVES (UG/L)				
1,3,5-Trinitrobenzene	-	0/1	< 0.13	< 0.13
1,3-Dinitrobenzene	-	0/1	< 0.99	< 0.99
2,4,6-Trinitrotoluene	-	0/1	< 0.29	< 0.29
2,4-Dinitrotoluene	-	0/1	< 0.23	< 0.23
2,6-Dinitrotoluene	-	0/1	< 0.2	< 0.2
2-Amino-4,6-Dinitrotoluene	-	0/1	< 0.17	< 0.17
2-Nitrotoluene	-	0/1	< 0.32	< 0.32
3-Nitrotoluene	-	0/1	< 0.51	< 0.51
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.31	< 0.31
4-Nitrotoluene	-	0/1	< 0.37	< 0.37
HMX	-	0/1	< 0.16	< 0.16
Nitrobenzene	-	0/1	< 0.23	< 0.23
RDX	-	0/1	< 0.56	< 0.56
Tetryl	-	0/1	< 0.25	< 0.25

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51